A STEP BY STEP GUIDE TO SUCCESSFULLY IMPLEMENT BLENDED LEARNING AND EXPANDED LEARNING TIME AT YOUR SCHOOL

SUPPORTING STUDENT SUCCESS

through Time and Technology



NATIONAL CENTER ON TIME & LEARNING

INDEX

BLENDED LEARNING AND EXPANDED LEARNING TIME

Over the last decade, two distinct but complementary trends are emerging to transform the ways in which children are educated. One of these trends, blended learning, is changing schools through the infusion of technology. By supplementing teacher-led instruction with new innovations in education hardware and software, students across the country are given access to new and exciting content, as well as new ways to learn and create. Concurrently, schools hoping to expand access to greater learning opportunities are also looking toward expanded learning time. With more time in school, students can delve more deeply into core academic subjects, gain exposure to engaging enrichment activities, and also provide teachers

Blended Learning and Expanded Learning Time Represent Two Separate but Complementary Ways to Transform Education

with the time they need to plan high-quality lessons and to grow professionally. In short, expanded learning time allows schools to deliver both breadth and depth, thus providing students with greater opportunities not just in the classroom, but beyond as they approach college and careers. The early successes of both blended learning and Expanded learning time schools have caught the attention of stakeholders ranging from government institutions to private funders. According to the Bill and Melinda Gates Foundation, investments for 'student-facing instructional technologies' nearly doubled from 2010 to 2013, with more growth expected in the future. Meanwhile, the federal School Improvement Grant (SIG) program allocates dollars for schools adopting expanded learning time, and various state legislatures—including Massachusetts, New York, Arizona, and Florida—provide additional funds to expand learning time.

To date, hundreds of schools across the country have leveraged either additional time or blended learning into significant student gains. Meanwhile, a small number of pioneering schools have combined both approaches to achieve dramatic gains in student achievement. The success of these schools have piqued the interest of legislators, philanthropists, business leaders, civic leaders,

Defining Blended Learning and Expanded Time

As interest in expanded time and blended learning grows, so too does the number of definitions. Here, expanded time is defined as those schools that have expanded the school calendar by more than 300 hours annually for all students beyond the traditional 6.5 hour, 180-day school year. Blended learning, meanwhile, is the use of digital content and/or tools that complement and integrate with teacher-led instruction. The Clayton Christensen Institute, a nonpartisan think tank that focuses on disruptive innovations, defines blended learning as "A formal education program in which a student learns:

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."*

The blended learning schools profiled in this blueprint leverage technology to create more opportunities for small group instruction, project-based work, differentiated instruction, and access to greater instructional resources and real time data.

educators, and parents all want to know: What can time and technology do for our students?

Together, blended learning and expanded learning time are helping students build 21st-century skills, such as creativity, problem-solving, communication, and collaboration. The two strategies, albeit different, play a mutually supportive role: Blended learning helps maximize the time spent in classrooms by creating additional opportunities for teachers to deliver small group or individualized instruction, while allowing students to self-direct their learning through digital content. Meanwhile, effective implementation of blended learning can be aided by more time, for both students and teachers. A longer school day allows schools greater flexibility to determine the length of classes in which blended learning takes place and also the option to create new blended classes without impacting existing courses. Expanded learning time also provides additional development opportunities—through increased planning, collaboration, coaching, peer observation, and/or professional development time—for staff to adjust to shifting roles in responsibilities within their blended settings.

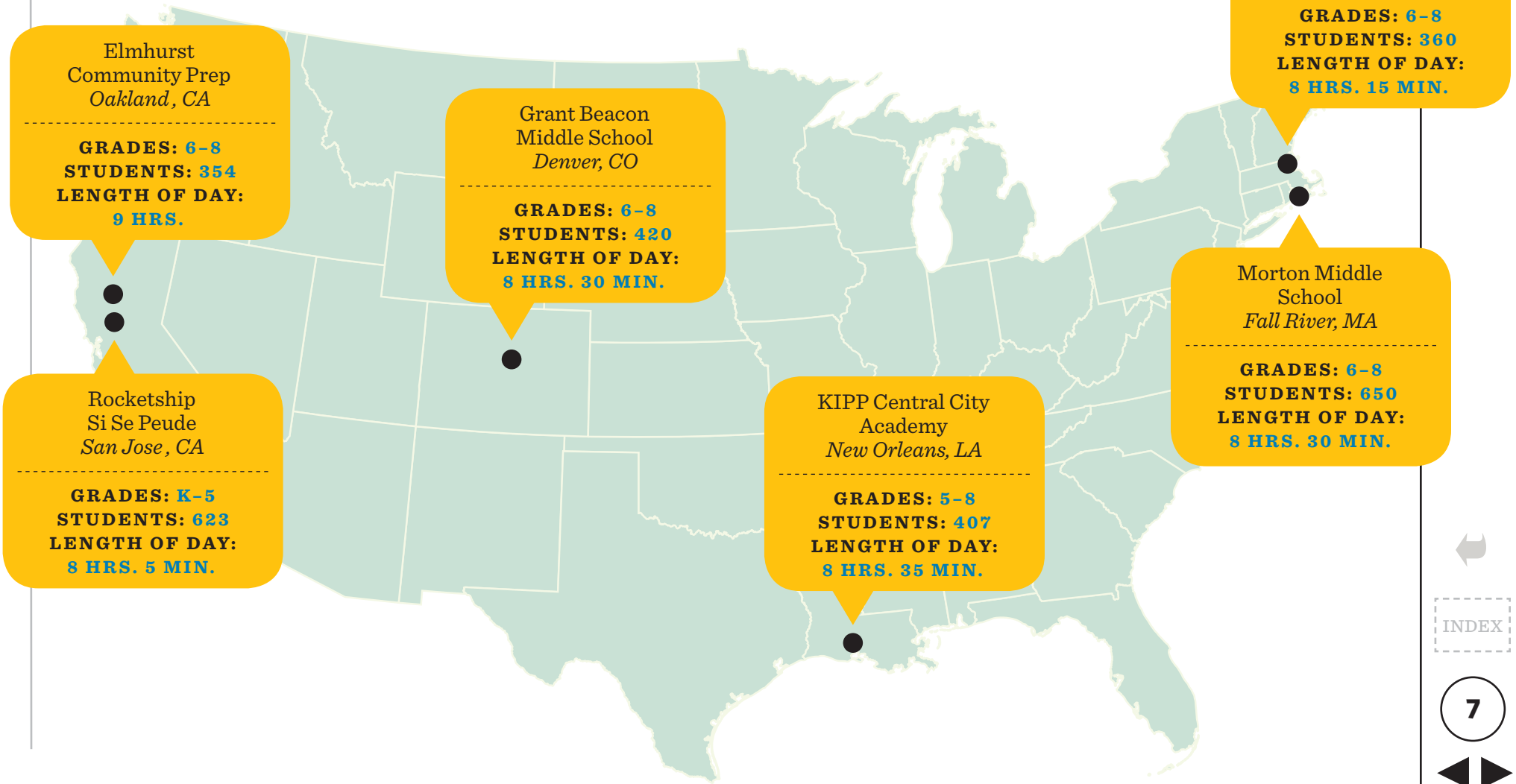
Of course, merely having more time and/or technology is insufficient for transformative change. Implementing and using these resources effectively are equally, if not more, crucial to success. This guide, *Supporting Student Success through Time and Technology*, reveals insights and experiences from these school practitioners as well as from leading researchers and experts to provide a planning and implementation roadmap for schools that are looking to personalize student learning through expanded learning time and blended learning. This guide is organized into two parts: The first profiles six expanded learning time schools across the country that have implemented blended learning for various purposes, in various ways, and with varying degrees of success. The second part of the guide offers a seven-step roadmap for planning and implementation, based on the experiences of the six schools profiled in part 1, along with insights from blended learning and expanded learning time experts (see "Part 1: The Six Expanded Learning Time Schools" and "Part 2: The Seven Steps for Blended Learning Implementation" for more information on each of these two parts). In essence, the first part of this guide is tailored toward those schools and districts interested in what blended learning looks like at expanded learning time schools, while practitioners in search of how to plan and implement blended learning may wish to focus on, or start with, the second part of the guide.

Separately, blended learning and expanded learning time offer numerous benefits for students and teachers. Together, blended learning and expanded learning time can even further enhance the school experience for students and teachers.

	BENEFITS FOR STUDENTS	BENEFITS FOR TEACHERS
BLENDED LEARNING SCHOOLS	Access to high quality content	Access to more real time data on student performance
	Access to tech tools that foster creativity, problem solving, and/or collaboration	Access to web/digital resources to strengthen lessons
	Access to tools and resources that bridge technology divide and build digital literacy	Access to flexible groupings that create more opportunities for individualized instruction
EXPANDED LEARNING TIME (ELT) SCHOOLS	More opportunities for individualized support	More opportunities for data analysis
	More opportunities for engaging enrichments	More opportunities for teacher collaboration
	More opportunities for developing higher order thinking skills	More opportunities for additional teacher supports and development
BLENDED LEARNING SCHOOLS WITH EXPANDED LEARNING TIME	Leverage tech and ELT into more opportunities for personalized learning	Raise the quality of instruction with more time for instruction and the tools to plan and deliver lessons
	Raise student engagement with high quality core academic classes and enrichment	Increase opportunities for differentiation with more time to utilize technology
	Increase preparation for college and 21st century workplace through tech tools and more time for learning	Increase teacher efficacy and satisfaction through more teaching tools afforded by technology and time to learn to use them

PART 1: The Six Expanded Time Blended Learning Schools

The six schools included in this publication all offer their students a longer school day compared to their surrounding district schools, and have leveraged online tools and content to enhance teacher-led instruction. Each of these schools has demonstrated significant gains in student achievement, with several outperforming their districts and states in English and/or math, as measured by their respective state's standardized assessment. Aside from their results and approaches, the schools share few common characteristics. They are a mix of charter schools and district schools, located throughout the country, that use time and technology in a variety of ways.



PART 2: The Seven Steps for Blended Learning Implementation

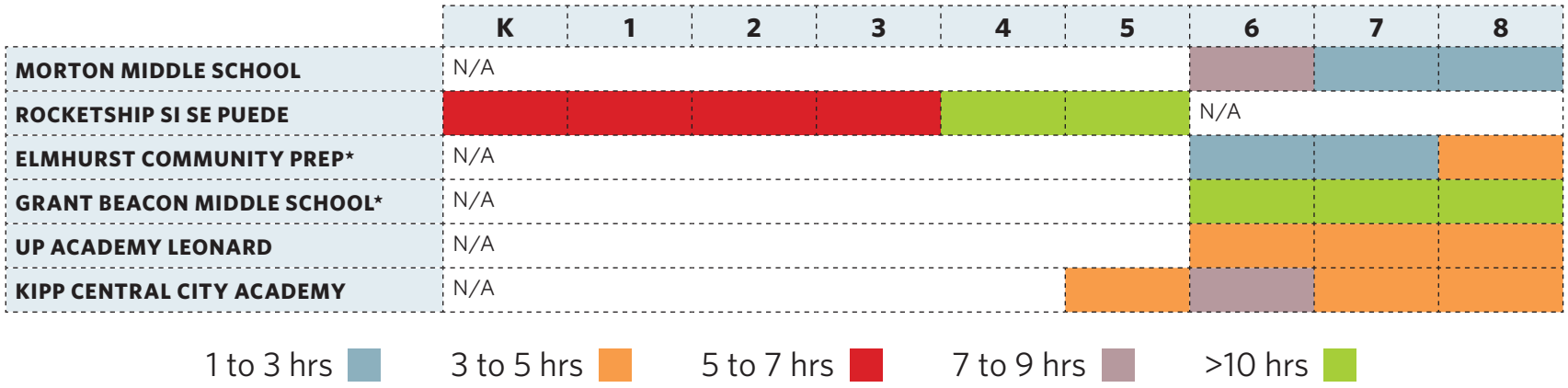
The seven steps described below are informed by the insights and experiences of the six individual schools featured in this guide, as well as by experts in blended learning and expanded learning time. These steps form a roadmap by which your school may wish to plan for and implement a blended learning model.

	STEPS	OBJECTIVES
1	SET A CLEAR, PURPOSE-DRIVE VISION FOR TECHNOLOGY AND BLENDED LEARNING	→ Create common definition of blended learning and potential benefits → Align potential benefits of blended learning with established school-wide and/or individual teacher goals → Identify members of a blended learning sub-committee to lead planning and implementation efforts → Schedule time to share vision and gain input and buy-in from staff and stakeholders
2	DETERMINE YOUR READINESS FOR BLENDED LEARNING	→ Schedule time to conduct observations, interviews, and surveys that help to identify readiness → Understand existing technology practices and staff attitudes toward blended learning → Understand available resources to implement blended learning → Identify additional supports to implement blended learning
3	DESIGN A BLENDED LEARNING MODEL	→ Schedule time to generate ideas and drafts of a blended learning model → Schedule time share model ideas with and elicit feedback from, staff, parents, and students → Determine the scope of your blended learning model (e.g. grades, subjects, students, staff, etc.) → Identify a model that aligns with your vision and is feasible given current practices, attitudes, and resources
4	SELECT THE TECHNOLOGY NEEDED FOR YOUR MODEL	→ Understand various options and costs for hardware and software → Identify the additional hardware and software that best meets the needs of your school's model → Identify potential facility upgrades or changes in order to implement your model → Determine the costs for additional hardware, software, and facility upgrades
5	PLAN AND DELIVER STAFF TRAINING	→ Identify and prioritize staff practices that are most crucial to the effective implementation of blended learning → Identify partner organization(s) to support teacher training or develop trainings that address these practices → Schedule trainings that prepare staff for the launch of blended learning → Schedule time throughout the year to continually support practices critical to the success of blended learning
6	CREATE A TROUBLESHOOT-ING PLAN	→ Identify technology issues that frequently arise at blended learning schools → Develop clear protocols and processes for resolving technology issues without burdening classroom teachers → Develop clear protocols for student activities to minimize student time off task when technology issues arise
7	REFLECT, ADJUST, AND IMPROVE	→ Track successes and areas for improvement in teacher practice → Identify strengths and weaknesses of existing software and digital content to drive future purchasing decisions → Reinforce a commitment to the continual improvement of blended learning to improve student learning

THE SIX EXPANDED TIME BLENDED LEARNING SCHOOLS

	Morton Middle School	Rocketship Sí Se Puede	Elmhurst Community Prep	UP Academy Leonard	Grant Beacon Middle School	KIPP Central City Academy
	Fall River, MA	San Jose, CA	Oakland, CA	Lawrence, MA	Denver, CO	New Orleans, LA
MODEL	Lab Rotation, Station Rotation	Lab Rotation, Station Rotation	Station Rotation	Lab Rotation	Station Rotation	Lab Rotation, Station Rotation
HARDWARE	Chromebooks, laptops, desktops	Chromebooks	Chromebooks	Desktops	Chromebooks, iPads	Chromebooks, desktops
SOFTWARE	iReady, Successmaker, Ten marks, Dreambox	iReady, ST Math, Dreambox, Lexia	Ten Marks, Khan Academy, Achieve 3000	IXL, ST Math, Ten Marks, iReady	Moodle	Achieve 3000, Curriculate, Educreations, Khan, Newsela, ST Math

Number of weekly hours students are in blended classrooms and/or labs (by grade level)



*Varies at Elmhurst and Grant, where teachers opt into blended learning; figures represent the most blended learning that a student may get at these schools

CASE STUDY 1

Fall River, MA

MORTON MIDDLE SCHOOL

→ Implementing Blended Learning and Expanded Time Simultaneously

Few schools have encountered more change than Morton Middle School (Fall River, MA) did in 2013. That year, the school absorbed more than 100 students and staff from a neighboring school that had closed, redesigned its schedule with an additional 90 minutes each day, moved into a new building, and implemented blended learning.

Amidst the many transitions taking place that year, one of Morton's early successes was its blended learning model, which takes place in both a lab period and in a subset of English and math classrooms. Today, all students spend one of their daily 60-minute intervention periods each week in the school's computer lab, during which they use digital

GRADES SERVED:	6 – 8
STUDENTS:	650
SCHOOL DAY:	7:15 – 3:45
SCHOOL DAYS/YEAR:	180
FIRST YEAR OF BLENDED LEARNING IMPLEMENTATION:	2013 – 2014

content—programs such as Dreambox, iReady, Ten Marks, and SuccessMaker—for additional, targeted English and math support. "We see the lab period as a way for students to practice the skills they each need to improve on," says Sheryl Rabbitt, the school's principal. In addition to the lab period, twice each week, 6th grade students receive a station rotation lesson in their 90-minute English and math classes consisting of three 25-minute small-group stations: teacher-led instruction, independent or partner activity, and adaptive digital content.

BLENDED LESSONS IN MATH AND ENGLISH LANGUAGE ARTS

At Morton, the blended lessons are strikingly similar across the different sixth-grade classrooms. In Graham Coogan's sixth-grade math classroom, for example, the 26 students are split into three groups. Near the white board, nine students are seated in a circle around Coogan, as he first checks each student's homework before launching into a mini-lesson. "How would we write this mixed number as a percentage?" Coogan asks, and waits for all nine hands to go up. Nearby, another group of eight students forms four sets of partners, with a game board in front of them that requires each

Sample 6th Grade Student Schedule	
7:15 – 8:45	**English**
8:45 – 9:45	**Social Studies**
9:45 – 11:15	**Math**
11:15 – 12:15	**Science**
12:15 – 12:45	**Lunch**
12:45 – 1:45	**Specials**
1:45 – 2:45	**Academic Support**
2:45 – 3:45	**Elective/Enrich**

= periods in which blended learning takes place

HARDWARE USED: Chromebooks, laptops, desktops

SOFTWARE: iReady, Successmaker, Ten Marks, Dreambox, Mastery Connect

student to convert fractions in order to win the game. Meanwhile, in the back of the room, a third group of students sits in front of Chromebooks, working through digital content on i-Ready or Successmaker. After approximately 25 minutes, Coogan announces to the class, "Everyone, finish up your games and start logging out. You're going to have 30 seconds to move to the next station."

In just its first year of implementation, Morton's blended approach is generating excitement among students. "I like lessons where we get to different stations because the work is more interesting and we get to be on the computers," remarks one sixth-grade student. "Our seventh- and eighth-grade students are coming up to us and asking, 'When can we have blended lessons?'" says Elizabeth Lewis, Morton's Technology Facilitator. Teachers are also benefiting from the station rotation model. "I get to work with small groups a lot more," says Linda Howard, a sixth-grade English teacher at Morton. "I understand my kids so much better now. Working with them individually and having their data from iReady [one of the school's digital content providers] has really opened my eyes to each kid's strengths and weaknesses." The opportunity to increase and improve small group

instruction was one reason that drew Rabbitt to blended learning. "Our district has really stressed the workshop model," she says, "so we thought blended learning was something that could help to reinforce that, not replace it."

LEADERSHIP SUPPORT AND COMMITMENT TO BLENDED LEARNING

Linda Howard, Sheryl Rabbitt, and other staff credit much of Morton's success with blended learning to its two department heads—Sheryl

> ***"The rotation lessons are stronger because they're more differentiated. But these lessons take a lot longer to plan, so we really need the time."***
> *— SHERYL PATTERSON, Math Department Head*

Patterson (math) and Tara O'Brien (English)—and its Technology Facilitator, Elizabeth Lewis. "When I'd heard we were doing this blended learning model," says Howard, "I was a little hesitant. I've been teaching for over 30 years and I'm not that comfortable with technology. But Beth [Lewis] came in and modeled everything for us, and it gave me a really clear picture of what I was supposed to be doing." With the expanded day, Morton teachers have also benefited from additional collaboration time to share blended learning strategies and co-plan lessons. "Our teachers have three 60-minute collaboration meetings each week," according to Rabbitt. "During this time, the sixth-grade team are working with one another and with Sheryl or Tara [the department heads] to create the blended lessons they'll all be using." Patterson adds, "The rotation lessons are stronger because they're more differentiated. But these lessons take a lot longer to plan, so we really need the time." Frequent collaboration at Morton leads not only to common lesson plans, but also to common classroom management techniques.

In each of the sixth-grade classrooms, procedures, routines, and transitions are consistent. Teachers give a two minute warning before groups rotate, give students specific directions for leaving their stations, establish expectations for noise levels, and announce the amount of time students have to move to their next stations.

Lessons Learned from Morton

- ✓ **Align blended learning to school-wide priorities**
- ✓ **Dedicate technology and instructional leads to support teachers**
- ✓ **Ensure teachers have sufficient collaboration time**

The consistent quality of blended learning lessons at Morton has built school-wide enthusiasm for technology beyond the sixth grade. Today, the school offers several technology enrichment courses, including computer engineering and software programming. Additionally, the school is also planning to scale blended learning into the seventh and eighth grades in subsequent years. "Personalizing instruction was just one of our goals for blended learning," says Rabbitt. "We also wanted to turn this school into one where technology played a critical role in getting our students ready for the 21st century." The school-wide commitment to

personalizing instruction through technology has resulted not only in student gains, but also improvements to the school's culture. "I did feel a little isolated when I first came over here," says Howard, who was one of the teachers who had come to Morton after her school was closed. "The more you work with people, the more you know them. The students are adjusting to their new school too. It's not perfect yet, but we've definitely improved a lot." For many of Morton's students and staff, like Howard, the 2013-2014 school year presented more change than they had ever encountered; and yet, blended learning has been one change that has received support from almost everyone at Morton. "It's really changed the way I teach and the way my students learn," says Howard. "I just wish we could do more of these lessons."

CASE STUDY 2

San Jose, CA

ROCKETSHIP
SÍ SE PUEDE

→ Refining and Learning from Various Blended Approaches

In the six years since opening its first school in San Jose, the charter management organization (CMO) Rocketship has been somewhat of a Rorschach test in the K-12 education landscape. Supporters see Rocketship schools' use of blended learning as an innovative and sustainable model that serves students in low-income communities and produces impressive achievement gains. However, detractors point to criticisms from former Rocketship staff and declining test scores as a warning to those who wish to replicate the approach. Despite the increasing scrutiny paid to Rocketship and its model, the network continues to grow. Today, Rocketship operates nine schools in San Jose and Milwaukee, with agreements to open

GRADES SERVED:	K – 5
STUDENTS:	623
SCHOOL DAY:	7:55 – 4:00
SCHOOL DAYS/YEAR:	181
FIRST YEAR OF BLENDED LEARNING IMPLEMENTATION:	2009 – 2010

additional schools in Nashville and Washington, D.C. in the near future. "Our goal is to eliminate the achievement gap," says Charlie Bufalino, Rocketship's Manager of Growth and Policy. "We know we haven't gotten everything perfect yet, so organizationally we must continue to innovate. We are always looking to improve and broaden our reach."

Sample 5th Grade Student Schedule	
7:55 – 8:10	**Launch**
8:10 – 8:40	**Breakfast/Reading/ Homework Check**
8:50 – 11:20	**Reading, Writing, Math, and/or Tutoring***
11:20 – 12:00	**Lunch and Recess**
12:00 – 12:10	**Independent Reading**
12:10 – 1:00	**Reading, Writing, Math, and/or Tutoring***
1:00 – 1:50	**Enrichment**
1:50 – 2:00	**Independent Reading**
2:00 – 4:00	**Reading, Writing, Math, and/or Tutoring***

= periods in which blended learning takes place
HARDWARE USED: Chromebooks
SOFTWARE: iReady, STMath, Dreambox, Lexia

*The length of subjects varies by student and by day

ROCKETSHIP ROTATIONAL MODEL & LEARNING LAB

As Rocketship's second school, Rocketship Sí Se Puede (San Jose, CA) has undergone various changes to its blended learning model. Opened in 2009, Sí Se Puede currently serves 623 students in grades K to 5 within an 8-hour school day that includes over 3 hours of literacy and 90 minutes of math each day. When the school first opened, blended learning took place primarily during learning lab, a daily 100-minute period for all students that included three components: 30 minutes of enrichment (e.g. art, physical education, and health), 40 minutes of math and/or literacy digital content, and 30 minutes at a

reading center; individual tutoring was provided within the digital content and reading center stations. Learning lab took place in one of the school's largest rooms, with enough space for 80 desktop computers and 100 students—or three classroom sections. At any time, each class would be at one of the enrichment, digital content, or reading center stations. Each Learning Lab period was staffed with five individualized learning specialists, who played a supervisory role while offering occasional technical support. Throughout the school's early years, learning lab played a crucial role in Sí Se Puede's success and sustainability. "Learning lab really lets each one of our students get the individualized support and practice they need—either through the adaptive digital content or tutoring," says one Rocketship administrator.

In addition to increased student supports, learning lab has also helped to lower costs for Sí Se Puede and other Rocketship schools. By scheduling a period that can simultaneously serve three classrooms during one period, Rocketship has been able to spend less on facilities and staffing relative to other similarly sized, expanded-time schools. Those savings are then devoted to teacher development, including additional training opportunities and instructional leadership staff. "We're constantly thinking about ways to challenge and improve our teachers," says Bufalino. "We want to turn our new teachers into great teachers, and our great teachers into teacher leaders."

FLEXIBLE CLASSROOMS IN THE 4TH AND 5TH GRADES

Although Learning Lab has been vital in the growth

of Rocketship schools like Sí Se Puede, as well as in the expansion of the Rocketship network to other cities, the school continues to tweak and improve on its blended learning model. In the 2013-14 school year—five years after it first opened—Sí Se Puede adopted a slightly different approach to blended learning. As Bufalino says, "We're at something like version 4.0.2 in blended learning." Specifically, the most recent change at Sí Se Puede was intended to improve the connection between teacher-led instruction and online content, while also better preparing the school's older students for middle school. To do so, the school first began, literally, by knocking down walls. During the summer of 2013, Sí Se Puede broke through the walls that had previously separated their six fourth- and fifth-grade classrooms (three rooms in each grade), resulting in the creation of one large classroom for fourth-grade and another for fifth-grade. In each of those two grades, all of the students, teachers, support staff, and technology were brought into one large classroom.

On a warm January day, inside the school's fifth-grade classroom, approximately 75 students were spread throughout four different stations. One group of 20 students received direct instruction from a literacy teacher. At the opposite end of the

» Illustration of Rocketship's Flexible Classroom
Source: Rocketship Education.

cavernous classroom, another teacher led a group of 20 students through a math lesson. Situated between the literacy and math groups, 25 other students used one of the class's 60 Chromebooks, as they worked through adaptive math content on i-Ready. The remaining 10 students circled around a large table, getting small group and individual

support from a third teacher and from one of the school's individualized learning specialists. Each student had schedules personalized to his/her needs, including the amount of time they should devote to various subjects and in which different settings (e.g. direct instruction, tutoring, or digital content).

Throughout the 2013–14 school year, the biggest challenge for these teachers working within this flexible classroom was lesson planning. "We're asking our fourth- and fifth-grade teachers to differentiate their instruction a lot more," says Jason Fromoltz, assistant principal. "They really need to know their students better and work with each other more." To meet the growing demands on these teachers, Sí Se Puede scheduled a daily 45-minute common planning period for these teachers, while also providing additional instructional coaching. "Our teachers didn't always have common planning time," says Manager of Growth and Policy Charlie Bufalino, "but now we're giving them 45 minutes every day to talk with their peers and coming up with other ways to really support them. In addition to more time with one another, we're also exploring ways for staff to be informal mentors to their peers."

Lessons Learned from Rocketship

- ✓ **Built a culture of continuous improvement**
- ✓ **Devote leadership support to teachers**
- ✓ **Provide teachers with collaboration time**

LESSONS LEARNED FROM FLEXIBLE CLASSROOMS AND REVERTING BACK TO THE LAB

Due to inconsistencies in implementing the flexible classroom, along with concerns about scaling this approach at its other schools, Rocketship announced in March 2014 that all grades at all schools would revert back to the Learning Lab model beginning in fall 2014. Despite the discontinuation of the flexible classrooms, Rocketship maintains the model yielded some successes in student learning, particularly in promoting skills such as self-control and self-monitoring. Furthermore, teacher attitudes toward the model improved throughout the year as well, with 67 percent of teachers approving the model at the end of the 2013–14 school year, compared to just 4 percent at the beginning of the same school year.

Certain components of the flexible classroom model will carry into the future. For instance, technology will no longer be limited to the Learning Lab; instead, teachers will have greater access to computers in their math, science, and humanities classes. Additionally, the school will experiment with a new 40-minute flex period in fall 2014, which will allow grade-level teachers to swap and group students according to their needs. Finally, Rocketship teachers will continue to have common planning time next year to learn from one another, analyze data, and share instructional strategies. These changes, and those proposed for upcoming years, reflect the organization's commitment to continuous improvement through expanded time and blended learning. "Being innovative is part of our DNA," says Bufalino. "We will continue to evolve, and while we don't know exactly how it's going to evolve, technology will always be supplemental. It's only going to be as good as the people who use it and how it supports the work that our people are doing."

> ***"It [technology] is only going to be as good as the people who use it and how it supports the work that our people are doing."*** *— CHARLIE BUFALINO, Manager of Growth and Policy*

CASE STUDY 3

Oakland, CA

ELMHURST COMMUNITY PREP

Restarting Blended Learning and Learning from Past Mistakes

"Can I see your topic sentence and supporting evidence?" Megan MacPherson asks one of her students. As she scans the student's essay, she points out both strengths and areas for improvement. "I think your main ideas are really strong, and to make this better, I'd add more details to your second point." In a class of 32 students, blended learning has allowed MacPherson to deliver more support to individual students, while digital content has given students more opportunities for individualized practice. As she circulates the room to check in with each student, the other 31 students in MacPherson's math and science class are engaged in a variety of individual activities. Approximately half of them are reading and editing

GRADES SERVED:	6 – 8
STUDENTS:	354
SCHOOL DAY:	8:00 – 5:00
SCHOOL DAYS/YEAR:	190
FIRST YEAR OF BLENDED LEARNING IMPLEMENTATION:	2012 – 2013

essays, while the other 16 students focus on their Chromebook, as they practice math problems on Ten Marks, one of the school's digital content providers.

Across the hall, blended learning is also being incorporated into Stevie Evans's classroom, which includes 15 students in grades 6 to 8—all with individualized education plans (IEPs). Throughout a 90-minute math lesson, students rotate through three different stations. At one station, Evans delivers direct instruction to 5 students on graphing coordinates. Meanwhile, another group practices math fluency facts with a teacher assistant. The remaining 5 students engage with math content on a variety of math programs, such as Ten Marks or Khan Academy.

Sample 8th Grade Student Schedule	
8:07 – 9:04	**English**
9:04 – 10:01	**Math**
10:01 – 10:46	**History**
10:46 – 11:43	**Intervention**
11:43 – 12:40	**Science**
12:40 – 1:25	**Lunch**
1:25 – 1:55	**Advisory**
2:00 – 5:00	**Enrichment**

= periods in which blended learning takes place
HARDWARE USED: Chromebooks
SOFTWARE: Ten Marks, Khan Academy, Achieve 3000

LEARNING FROM AN UNSUCCESSFUL LAUNCH

Although MacPherson and Evans have adopted technology into their classrooms, a number of other teachers at Elmhurst Community Prep (Oakland, CA) remain hesitant to follow suit, after a failed school-wide initiative to launch blended learning during the 2012-13 school year. Kilian Betlach, Elmhurst's principal, recalls the school's decision to pursue blended learning that year: "Through expanded time, we'd created these intervention blocks that we wanted to use to really

serve our students, and we thought technology could help us engage those students and also give us the real time data we need to know how to serve each student." In addition to expanded time, the school had been given increased autonomy and flexibility through the federal government's School Improvement Grant (SIG) program. Further, the school had received additional funding and support from the Rogers Family Foundation and the Oakland Unified School District to explore blended learning.

With additional time, flexibility, autonomy, and funding, Elmhurst purchased desktop computers for each classroom, along with digital content. The school also partnered with Junyo, an ed tech startup, to support the launch in two ways: a) by providing advice on design and purchasing decisions and b) by building an on-line tool that eased the gathering and analysis of data from digital content. In SY 2012–13, the school had planned to use technology in a variety of ways, throughout different classes, and data generated from its use would inform teacher planning and instruction. With these goals in mind, during the spring and summer of 2012, Betlach and other school leaders prepared teachers for blended learning by supporting the development of new

lessons that incorporated technology, as well as by generating excitement for the ways in which these tools would allow teachers greater opportunities for small group instruction and greater access to student data. However, that vision never came to life. Six months after signing on with Elmhurst, Junyo pulled out of the project. In addition to not delivering the data tool, Junyo also made suggestions that, according to Betlach, have set back the school's push for blended learning. "They told us to buy all these digital content

programs that we really didn't need. They told us our wireless connection could support all the computers online, and they told us to put desktops in each classroom. All of those things have hurt us." When the school opened in September 2012, students and teachers soon encountered frequent technology malfunctions—many of them due to a slow internet connection—while data generated from various content providers became difficult to capture without a single reporting platform. Cori Schneider, one of the school's founding teachers, remembers the disappointment and frustration among staff. "We'd spent a lot of time really rethinking the way we plan lessons and deliver instruction, and then, when everyone tried to get on the network, nothing worked and we had to scramble to readjust our lessons on the fly. That really made a lot of people hesitant to trust the technology."

REBUILDING MOMENTUM FOR BLENDED LEARNING

Despite these setbacks, Betlach is continuing his push for blended learning. "There's still tremendous potential for technology to benefit our students and our teachers." In the following 2013–14 school year, Betlach gave all teachers at Elmhurst the choice to participate in the school's blended learning reboot. "We lost some momentum because of what happened last year," says Betlach, "but we still have some teachers who are very interested in it." He engaged teachers to better understand their reservations, and also provided assurances that technological issues had been resolved. "We really had to earn back our teachers' trust that the technology will work and that it will improve the instruction students

Lessons Learned From Elmhurst

- ✓ **Reflect on and learn from mistakes**
- ✓ **Ensure sufficient bandwidth to support technology**
- ✓ **Explore multiple digital content options before making purchasing decisions**

receive," says Betlach. Ultimately, a small number of teachers agreed to try blended learning again, including all of the school's eighth-grade teachers.

One of these teachers is Shari Generaux, who incorporates technology into her science classes in a variety of ways. Along with using her SMART board and document camera, Generaux has also created a website specifically devoted to her classes, from which students can access additional content and assessments. Typically, the 30 students in one of her classes are divided into two groups: one receiving direct instruction from the teacher while the other works independently as they access online content. "It's a lot more planning, but the technology allows me to access more content and resources that can really bring learning to life," remarks Generaux.

Throughout the classrooms where Generaux, MacPherson, Evans, and others teach, the momentum for blended learning is slowly rebuilding. "We share some of the practices taking place in these classrooms during our professional development time," says Kilian Betlach. These sessions are held once each week, after the school's early release, which allows for 1.5 hours of teacher collaboration and planning. "Having that time each week is crucial for our teachers to share practices and learn from each other," says Betlach. The school also has a committee devoted to technology. "We talk about technology issues and how we can really build on what we've started," says Schneider. The eighth-grade team also dedicates time each week to collaborate

> ***"Having that time each week is crucial for our teachers to share practices and learn from each other."*** *— KILIAN BETLACH, Principal*

around blended learning. "We spend time with our team to really talk about procedures and setting expectations for our students, so that we're all on the same page," Genereaux says.

Providing time for teachers to meet and share lessons learned is crucial to the success of any school's blended learning model. Equally important is the school's ability to continue to fund their efforts. "Kilian is great at raising dollars and advocating to the district for more technology at the school," says Schneider. In recognition of his school's past failed efforts, Betlach plans to be more intentional with any future funding he receives. "There's a lot of high quality free stuff out there, but we also need more money to buy more devices. With so much out there, we just have to be smarter about how and where we allocate our dollars."

CASE STUDY 4

Denver, CO

GRANT BEACON MIDDLE SCHOOL

→ Embedding Technology through School and Teacher Autonomy

Inside Peter Grampp's classroom, the sounds of scribbling pencils and shuffling papers have been replaced by mouse clicks and keyboard keys. Instead of textbooks and worksheets, in front of each of the 24 sixth graders sits a Chromebook, from which these students access information, demonstrate knowledge, and share ideas. Much of the 58-minute English period is student-directed, and the entire class is quietly focused on one of several activities planned by Grampp: Watch a video lecture, answer an essay question, or participate in an online student discussion forum. In this setting, Grampp serves as a facilitator, circulating the room to answer students' questions, or asking his own questions, aimed at pushing students' thinking.

GRADES SERVED:	6 – 8
STUDENTS:	420
SCHOOL DAY:	7:30 – 4:00
SCHOOL DAYS/YEAR:	184
FIRST YEAR OF BLENDED LEARNING IMPLEMENTATION:	2012 – 2013

On the floor above, the use of technology and the atmosphere of the classroom are strikingly different in Mark Horowitz's social studies classrooms. Here, online videos of current and historical events are interspersed throughout the period to spark spirited student debates on governmental decisions and actions. Like Grampp, Horowitz plays the role of facilitator, summarizing arguments and presenting new questions that challenge students' assumptions. After each comment, students' hands shoot up in response. The discussion is intended to build understanding and interest concerning the size and scope of government, and technology plays a role in starting debates, as well as advancing them. In addition to watching online videos, each student has an iPad that connects him/her to the school's Moodle page—an online Learning Management System (LMS) that organizes each classroom's students, assignments, and classroom content—where Horowitz has set up additional links to guide students' exploration of more information and perspectives on government action.

Next door, technology is helping to enable small group instruction in Dan Walsh's eighth-grade math class. Here, students are split into two groups of different sizes. The first group includes

Sample 6th Grade Student Schedule	
7:30 – 7:44	**Advisory**
7:44 – 8:43	**Math**
8:47 – 9:46	**Language Arts**
9:50 – 10:49	**Science**
10:53 – 11:29	**Elective**
11:33 – 12:09	**Lunch**
12:13 – 12:49	**Elective (continued)**
12:53 – 1:52	**Reading**
1:56 – 2:55	**Social Studies**
3:04 – 4:00	**Enrichment**

= periods in which blended learning takes place

HARDWARE USED: iPads; Chromebooks

SOFTWARE: Moodle

18 students who use iPads to log onto Moodle to complete problems on x and y intercepts. A second, smaller group of 7 students receives direct support from Walsh on graphing points on a coordinate plane.

TEACHER AUTONOMY AND BUY-IN

An expanded 8.5 hour day allows Grant Beacon Middle School (Denver, CO) to schedule daily, 58-minute periods in literacy, math, social studies, and science. Technology plays a key role in each of these content areas. Indeed, at Grant, students are accessing online content, through iPads and/or Chromebooks, as many as five hours each day. Although technology use is widespread throughout the school, teachers are allowed to adjust lessons according to their grade, content, and style. With the autonomy afforded to staff, teachers are finding various ways that technology is improving their craft. "I really like having the technology because it allows me to work with students individually," says Grampp. "Also, when I record my lectures, I make sure everything about them is right, so that all my sections see the best lecture, and they can rewind to any parts that they may have missed or want repeated. It's just a much more efficient use of classroom time." Meanwhile,

Mark Horowitz utilizes technology for the variety of content that can supplement his social studies classes. "There is so much going on in the news and so many cool apps that really allow my lessons to come to life." For Dan Walsh, the value of technology is being able to differentiate instruction to meet the diverse student needs in his math classes. "Some of my students were really struggling with the properties of a coordinate plane," says Walsh, "while others were ready to

» Grant's Moodle Page, from which students access course content and participate in online discussions

move onto more algebraic concepts like slope. Having the Moodle really helps me provide both groups with what they need."

Regardless of their individual reasons, the school is clear that technology is a crucial tool in driving its vision—one that is shared with staff, students, and parents: "Through the integration of technology and collaborative work of students, staff, families, and community partners, Grant Beacon Middle School will bring together its neighborhoods' diverse communities and prepare students with the academic knowledge and 21st-century leadership skills necessary for college and career success." Alex Magaña, the school's principal, remembers the school's shift to blended learning. "In 2012, I said to everyone, 'We can either let change happen to us or make the change ourselves.' We decided to embrace a sense of self-determination and really looked at different ways to better the instruction our kids were getting." That year, Grant was in the midst of a school-wide overhaul intended to raise student achievement. To aid that process, Denver Public Schools (DPS) had awarded the school innovation status, and along with it, flexibilities and autonomies around budgeting, scheduling, and staffing that are typically not available to other schools in the

district. With the flexibilities and autonomies that accompany innovation status, Magaña and his staff decided to introduce technology into the classroom.

That decision would bring sweeping changes into schedules, staffing, and practices. Magaña, in an effort to both build buy-in and ease the transition for many of his staff, allowed teachers to opt into using technology and granted them great latitude in determining how technology would be used. "We basically did two things that first year," recalls Magaña. "We set up the Moodle so everyone can put whatever content they wanted to on one platform, and then we gave them a simple lesson plan template."

Today, most of Grant's teachers' lessons and content can be accessed on Moodle, and students are also using the Moodle to turn in assignments and initiate conversations with their peers. Magaña explains the student experience on the school's Moodle. "We have Chromebooks or iPads in almost all of our classrooms. So any student in any classroom can pull up their schedule for the day and see what their teachers are teaching that day, and in some cases, what other students are saying in those classes." By organizing lessons

Lessons Learned from Grant Beacon

- ✓ **Create teacher buy-in through other teachers**
- ✓ **provide frequent teacher supports**
- ✓ **Create an online platform that organizes courses and content**

and assignments on one web-based platform, the Moodle also has eliminated some of the logistical responsibilities commonly cast on teachers. "In the past, if there was a kid who missed a class because they were sick," says Grampp, "I'd have to make sure to make a note of it and walk them through what they'd missed. Now they know to just go on the Moodle and look to see what they need to do."

SUPPORTING TEACHER NEEDS

Along with procuring technology and creating structures, Principal Magaña also rethought the school's staffing to support its blended initiative. Today, the school has a dedicated Blended Learning Team (BLT), consisting of Magaña, one teacher, and two technology support staff who meet weekly for 45 minutes. The support staff troubleshoot technology problems in classrooms, incorporate tech practices into professional development offerings, and support the use of technology in teachers' daily instruction.

While Grant's expanded day has helped students embrace their school's use of technology, additional time also has allowed school leaders to plan supports for teachers, while offering teachers more opportunities to learn from their peers. In addition to the 45 minutes each week for the BLT, the school schedules a weekly early release period for professional development—a time that is often devoted to technology. Furthermore, teachers have common planning times each day to meet and share ideas. As a result, teacher practices around technology have flourished at the school. "Once we got a few teachers to really buy in, we knew we could convince the rest of the staff, so long as we provided the opportunities to get the word out," Magaña recounts. One such convert was Grampp, who initially had been reluctant to incorporate technology into his lessons. "I've been teaching for 20 years and it just didn't seem like it was for me," Grampp now reflects, "but once I heard other teachers talking about it in our meetings, I started asking around, and there were a lot of people who gave me a lot of great ideas. It was a big transition, but my kids are definitely learning more because of it."

> ***"It [blended learning] was a big transition, but my kids are definitely learning more because of it."*** *— PETER GRAMPP, 6th Grade English Teacher*

CASE STUDY 5

Lawrence, MA

UP ACADEMY LEONARD

Leveraging Blended Learning for Math Intervention

In just two years, Unlocking Potential (UP) has produced impressive gains turning around formerly failing district schools in Massachusetts. Today, UP operates four schools—two in Boston and two in Lawrence—with plans to open additional schools in the future. Most recently, in 2013, UP Academy Boston and UP Academy Leonard (Lawrence) posted student gains on the math Massachusetts Comprehensive Assessment System (MCAS) that ranked these two schools first and second in growth, respectively, across the entire state. The same year, UP was also recognized as the 2013 Education Reform Organization of the Year by New Schools Venture Fund.

GRADES SERVED:	6 – 8
STUDENTS:	360
SCHOOL DAY:	7:45 – 4:00
SCHOOL DAYS/YEAR:	185
FIRST YEAR OF BLENDED LEARNING IMPLEMENTATION:	2012 – 2013

Sample 6th Grade Student Schedule	
7:45 – 8:10	**AM Homeroom**
8:10 – 9:30	**English**
9:30 – 9:45	**Break**
9:45 – 11:05	**Math**
11:05 – 11:30	**Lunch**
11:30 – 12:10	**Specials**
12:10 – 12:50	**Learning Lab**
12:50 – 1:05	**Break**
1:05 – 2:25	**Social Studies/Science**
2:25 – 2:35	**PM Homeroom**
2:35 – 3:15	**Reading**
3:15 – 4:00	**Study Hall**

= periods in which blended learning takes place

HARDWARE USED: Desktops

SOFTWARE: IXL, ST Math, Ten Marks, iReady

Much of UP's success is due to its schools' overall educational approach, which features an 8-hour- 15-minute expanded school day that includes multiple opportunities for individualized learning. At UP Academy Leonard Middle School (grades 6-8), blended learning is just one of the ways students are receiving the targeted supports they need to be successful.

THE LAB MODEL AT LEONARD

"We were the first UP school to pilot a blended model," recalls Tyler Cote, the school's Dean of Curriculum and Instruction, "and we decided to go with a lab model." UP Academy Leonard's school day is split into five 80-minute periods. From Monday to Thursday, students spend half of one 80-minute period in a 40-minute Learning Lab, while the other 40 minutes are devoted to specials or an additional reading period. The school also

has two separate computer labs, each equipped with 25 desktop computers to serve its 330 students throughout the day.

In the learning lab, students work on adaptive math digital content programs. "We made a decision to use only math digital content," explains Cote, "because we just didn't think the reading and writing content are as effective in moving our kids ahead." During learning lab, students work primarily on three to four different programs—IXL, ST Math, Ten Marks, or iReady (only in the seventh grade)—depending on the day of the week. As Cote describes, "Each class will work on a different program each day to make sure they're cycling through the programs and getting about the same amount of time with each program. For instance, in sixth grade, students will do IXL on Monday, ST Math on Tuesday, Ten Marks on Wednesday, and their choice of program on Thursday."

Along with offering digital content that adapts to each student's skills, the learning lab period also provides an opportunity for individual tutoring. "Learning lab gives us a chance to pull out about 20 percent of our students who need the most support for one-on-one tutoring from a teacher," according to Cote. Every learning lab period is staffed by one of six resident teachers—support staff training to become teachers—who monitor the learning lab and provide occasional technical support to students, simultaneously enabling teachers to use this time to work with struggling students.

> ***"All of our resident teachers have a common set of expectations for students in our lab."***
> *— TYLER COTE, Dean of Curriculum and Instruction*

Lessons Learned From UP Leonard

- ✓ **Deliver summer training to relevant staff**
- ✓ **Establish clear expectations for students**
- ✓ **Use digital content data to inform student supports**

UTILIZING RESIDENT TEACHERS IN LAB

Before each school year, UP Leonard dedicates three weeks of training for all staff. For resident teachers, this time includes trainings to learn effective management systems, school-wide expectations and procedures, and tips for troubleshooting common issues in the Learning Lab. Cote explains, "All of our teacher residents have a common set of expectations around how students enter the lab, what they bring with them to the lab, the noise level at the lab, how they use and treat the computers, how to ask for help, and how to leave the learning lab." Indeed, a common set of expectations and time for training has led to consistency throughout the school. As each class enters into each Learning Lab period, the teacher resident greets each student and then reminds them of the program to log onto for that day. Students move quickly and silently into their seats, whereupon they log into their accounts, using a username and password given to them by the school; students use the same username and password for each program. Once they've logged into the program, students put on headphones that have been assigned to them, and begin working through the program for that day. Throughout the lab period, the only noises that can be heard are mouse clicks, keyboard strokes, and occasional whispers, as the resident teacher troubleshoots technical issues or refocuses individual students.

In addition to supervising the lab period, resident

teachers (i.e. support staff) are also responsible for the collection and analysis of student performance data that are generated by various programs. "We ask our resident teachers to look at the digital content data, because our math teachers are already inundated with data," explains Cote. "Every day, teachers are collecting exit tickets, and then they're also giving out weekly open-response quizzes, unit tests, and interim assessments." Meanwhile, each resident teacher reviews data from IXL, iReady, ST Math, and Ten Marks to monitor students' time on task during Learning Lab and also to group students who share similar skill gaps for additional support during their math class.

Although content teachers do not directly access data from digital content, UP Academy Leonard prioritized data reporting in selecting digital content. "We went with iReady in the seventh grade because they not only give us data on similar groups of students, but they also provide worksheets for further reinforcement," Cote states. Other student assessments also inform the assigning of digital content. UP Leonard partners with the Achievement Network to create benchmark assessments and data reporting tools; the former are aligned with Ten Marks, allowing student performance on benchmark assessments to inform the content students receive while they are on Ten Marks.

Although the school has made tremendous progress in only two years, Cote still sees room for improvement in the learning lab. "We need to have better training on the actual programs for our resident teachers," he notes. "They need to be more invested in the programs to better understand how they drive student achievement." In addition, the school is hoping to see improvement in the quality of reading and writing programs. Says Cote, "We think these programs have tremendous potential to help our students, but we have to improve some of our practices and the market for these products has to get better too."

CASE STUDY 6

New Orleans, LA

KIPP CENTRAL CITY ACADEMY

→ Piloting Blended Learning for Differentiated Practice and Writing

KIPP Central City Academy (KCCA) opened its doors in 2007 as part of New Orleans's Recovery School District—a dramatic effort to turn around the city's failing schools in the aftermath of Hurricane Katrina. Just four years later, in 2011, the school had produced the highest growth of any school in Louisiana, and by 2013, KCCA was one of the two highest-performing open-enrollment middle schools in New Orleans. Despite its impressive results, KCCA continues to focus on improvement. In an effort to deliver more personalized student supports, the school implemented a blended learning pilot in the 2013-2014 school year.

GRADES SERVED:	5 – 8
STUDENTS:	407
SCHOOL DAY:	7:30 – 4:05
SCHOOL DAYS/YEAR:	180
FIRST YEAR OF BLENDED LEARNING IMPLEMENTATION:	2013 – 2014

Sample 6th Grade Student Schedule

	Mon, Tue, Thu, Fri	Wednesday*
7:30 – 7:58	Homeroom	Homeroom
8:00 – 9:12	Science	Social Studies**
9:14 – 10:26	English	Elective
10:27 – 10:57	Ind. Reading	Math**
11:00 – 11:30	Lunch and Recess	Blended Learning
11:32 – 12:42	Math	Lunch and Recess
12:44 – 1:54	Social Studies	English**
1:56 – 2:42	Elective	Flex
2:45 – 3:45	Blended Learning	Homeroom
3:55 – 4:05	Homeroom	

= periods in which blended learning takes place
HARDWARE USED: Desktops, Chromebooks SOFTWARE: Achieve 3000, Curriculate, Educreations, Khan Academy, Newsela, ST Math

* Wednesdays start at 7:30 a.m. and end at 2:35 p.m.
** Each Wednesday, students receive three of four core classes: English, Social Studies, Math, and Science. The class they miss rotate each week.

BLENDED LEARNING PERIOD FOR ALL STUDENTS

Blended learning takes place in two separate settings throughout KCAA's 8-hour-35-minute school day. Four days each week, four 60-minute blended learning periods—one for each of the school's fifth through eighth grades—take place in the school's library. "Last year [SY 2012-2013], we got a grant to buy our technology: 120 chromebooks and 110 desktops," explains Hilah Barbot, the school's sixth-grade science teacher, and also the sixth-grade lead teacher. "We put all the desktops into the library so that each blended learning period can serve about 100 kids, which is the size of each of our grade levels." Due to the immense class size during these periods, clear expectations and routines are crucial. Each day, as classes file into the lab, every student logs into their individual Google account, which displays their performance on various content providers, and directs them to the online content for the day. On Mondays and Tuesdays, students

focus on reading and responding to questions on Achieve3000 or Curriculate; on Thursdays and Fridays, students work through math content on ST Math or Khan Academy.

In addition to establishing a rotating schedule for digital content, KCCA staff also track student performance during the blended learning period to tailor the practice students receive. "We meet every day to look at how students are doing and assign them content through our Google site,"

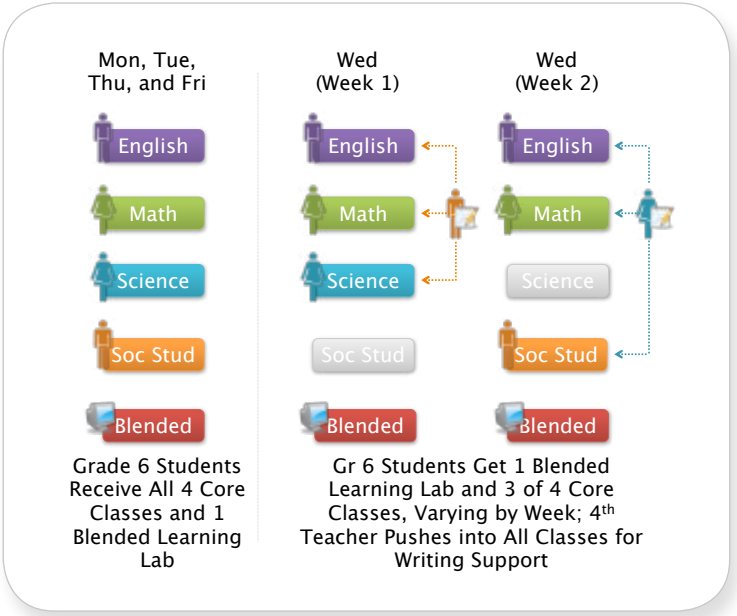
says Barbot. "Students log in and click on the blended learning tab, which lists the things that they need to get done for the day." Much of the content students receive is intended to improve foundational skills that had previously been addressed in core content classes. "I used to go over vocabulary a lot in my class," says Barbot, "but now they're doing a lot of that practicing in the lab. I've noticed that my students are actually learning more because they're coming into my class with the vocab, and I have more time to do other things."

Managing a classroom of 100 students also requires additional staff support. All blended

Lessons Learned from KIPP Central City

- ✓ **Establish a clear vision for blended learning**
- ✓ **Dedicate teacher time to share practices**
- ✓ **Start small and reflect on practices to grow and improve model**

learning periods are monitored by an administrator or specials teacher, who moves throughout the library to answer questions, troubleshoot technical issues, and ensure that students stay on task. "Before we brought blended learning to our school, we visited a bunch of other schools to learn what they were doing," recalls Barbot. "At the schools where it wasn't working as well, we saw that the students were just lost. They didn't know what to do, and then they were off task. We wanted to be sure that we had people overseeing this who knew the programs and knew the kids to help keep them focused." The school's staffing of blended learning periods has created an additional benefit for KCCA: a concurrent, 60-minute, common planning period each week for every grade level. Although teachers are not mandated to meet with one another during this time, many of them choose to do so. "In the sixth-grade, we're very collaborative. We meet every single day, and having an extra period for that while all our students are in their blended-learning period has been really important for us this year," Barbot says.



» Rotating Wednesday Schedule at KCCA

IMPROVING WRITING SUPPORT IN THE 6TH GRADE WITH BLENDED LEARNING

Collaboration is particularly important in the sixth-grade, which is piloting a separate blended learning model that brings technology into their classrooms. "The main problem we'd wanted to address through blended learning was a weakness in our curriculum: feedback we were giving in writing," remembers Barbot. To do so, the sixth-grade schedule has been adjusted slightly to allow for more time both to use technology within each classroom and also to

deliver more writing support.

Each Wednesday at KCCA is an early release day that begins at 7:30 AM and ends at 2:35 PM. In the seventh- and eighth-grades, the shorter day results in the loss of the Learning Lab period. In the sixth-grade, however, students still have learning lab on Wednesdays, but unlike the other four days of the week, each learning lab period only serves one section of students, rather than the entire grade, which comprises four sections. With fewer students in each lab period, the school assigns a lab monitor to supervise students, instead of an administrator or teacher. Further, the blended learning period each Wednesday takes the place of English, social studies, math, or science, depending on the week. The combination of an additional blended learning period, along with the loss of one core content class, allows one of the grade level's teachers to push into different classrooms every Wednesday. As Hilah Barbot, the sixth-grade science teacher, explains, "For instance, one Wednesday, my kids might not have science, which means I don't teach science that day. Instead, I'll push into the reading or the math classroom to really work on a cross-curricular project with an emphasis on writing. Next Wednesday, the kids might not have math and the math teacher is coming into my classroom to work with kids during science."

> ***The school's staffing of blended learning periods has created an additional benefit for KCCA: a concurrent, 60-minute, common planning period each week for every grade level.***

Technology is also helping to strengthen instruction in sixth-grade classrooms in ways beyond writing as well. "Being in each other's classrooms every week has really forced us to work with each other a lot more," Barbot says, "and that has made our messaging around writing a lot stronger." In addition to strengthening collaboration, teachers are exploring various digital content programs to better leverage the 30 Chromebooks in each of their classrooms. "Most

people—students and staff—have been really eager to get their hands on the Chromebooks," according to Barbot. "This year, we've been trying a bunch of different things, and having that common planning time to share what we're doing and learning has been great. Almost every day, it's been like, 'Hey guys, here's a tool I found. This is something we might want to explore.'" Today,

> ***"This year, we've been trying a bunch of different things, and having that common planning time to share what we're doing and learning has been great."***
> *— HILAH BARBOT, 6th Grade Science Teacher*

students in math watch videos created by their teacher through Educreations, and access non-fiction texts in social studies through Newsela. "Some of the biggest impact we've gotten this year is through free tools and sites like Google, Educreations, and Curriculate," says Barbot. "They're often pretty easy for teachers to learn, and it really builds up their ownership once they've mastered it and can put it to use in their classrooms."

NEXT STEPS: EXPANDING THE PILOT

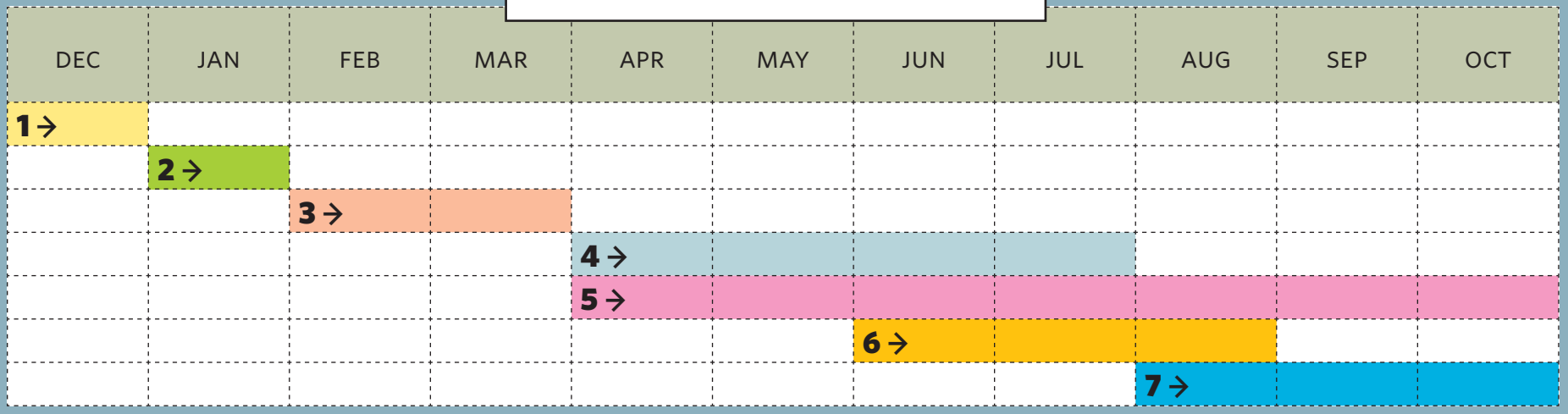
Through the promising results of the sixth-grade blended learning pilot, KCCA hopes to scale up

the model to the seventh- and eighth-grades in the 2014-2015 school year. Meanwhile, the 2013-2014 pilot year has also revealed several areas for improvement in future years. Barbot explains, "We really need to be better trained on the digital content, better trained on how to teach our kids to be digital learners. More than anything, we just need more time for professional development and collaboration around blended learning strategies." Through constant reflection and a commitment towards continuous improvement, Barbot and other KCCA staff have also uncovered a number of insights and lessons learned. "I'm so glad we did a slow rollout. Starting small, in one grade, even one classroom was the best decision we made," says Barbot. "By going small, we could be very open with staff and let them experiment and take ownership of it. At the beginning of the year, we introduced people to blended learning and tried to impress them with ways it could transform their teaching. There was a lot of investment from teachers, and from them, we've just been learning every day about what works and what we can do better next year."

THE SEVEN IMPLEMENTATION STEPS

1	2	3	4	5	6	7
Set a Clear Vision	Determine Readiness	Design a Model	Select Technology	Create a Staff Development Plan	Develop Systems for Trouble-shooting	Reflect, Adjust, Improve

TIMETABLE



STEP 1

Set a Clear, Purpose-Driven Vision for Technology and Blended Learning

Goals and objectives for this step

- Create common definition of blended learning and potential benefits
- Align potential benefits of blended learning with established school-wide and/or individual teacher goals
- Identify members of a blended learning sub-committee to lead planning and implementation efforts
- Schedule time to share vision and gain input and buy-in from staff

The teaching profession is undergoing a dramatic transformation. Policy shifts, new assessments, and increased scrutiny have led to an increasing amount of responsibilities, mandates, and subsequently stress on teachers. For many educators, blended learning and expanded learning time are just two of many ideas that call for change in their craft and inside their classrooms. Given the competing demands on teachers, effective implementation requires that teachers understand how leveraging technology will support their current efforts and better meet the needs of their students. To fully engage teachers in embracing technology, schools must develop and communicate a clear vision and purpose for blended learning that aligns to existing goals for student learning.

In addition to buy-in, a clear purpose-driven vision also serves as a guide around future decisions concerning design, procurement, and training needs (See steps 3 through 5 of this Guide.) More specifically, vision drives future decisions—such as the ways in which students interact with technology, the types of devices and content to be purchased, and the impact of the proposed changes on particular staff members. For example, UP Leonard's vision for technology was to provide students with more individual practice in math, particularly in targeted areas where they were weak. Therefore, they created a blended learning model to meet that vision, including a designated lab period staffed by a teacher resident—support staff training to become teachers. Because digital content was not being integrated into core instruction, Up Leonard prioritized training for the teacher residents supervising the labs, rather than training for all teachers. "We only train our teacher residents on the use of digital content," says Tyler Cote, the school's Dean of Curriculum and Instruction. "They [teacher residents] are responsible for looking through the data and reporting back to the teacher to relieve some of the responsibilities on teachers."

> ***Given the competing demands on teachers, effective implementation requires that teachers understand how leveraging techonology will support their current efforts and better the needs of their students.***

Supporting core instruction and providing intervention are just two reasons that schools decide to go blended; in fact, Digital Learning Now cites 10 benefits for schools in implementing blended learning and another 10 for teachers incorporating technology into their instruction. Regardless of the reason, schools looking to implement blended learning must clearly define and communicate a vision to all staff to gain trust, build excitement, and guide future decision-making.

VISIONS FOR BLENDED LEARNING

Six schools share their vision and purpose for blended learning

MORTON MIDDLE SCHOOL

"Developing 21st century knowledge and skills around four C's – critical thinking, creative problem solving, collaboration, and communication"
— *Morton school vision*

GRANT BEACON MIDDLE SCHOOL

"Through the integration of technology and collaborative work of students, staff, families, and community partners, Grant Beacon Middle School will bring together its neighborhoods' diverse communities and prepare students with the academic knowledge and 21st century leadership skills necessary for college and career success"
— Grant Beacon Middle School vision statement

UP ACADEMY LEONARD

"We really wanted our kids to have more individual practice and feedback on math." — TYLER COTE, *Dean of Curriculum and Instruction*

ROCKETSHIP SI SE PUEDE

"We wanted to personalize learning for students, particularly those entering the middle grades. Their learning should be more self-directed."
— Charlie Bufalino, Manager of Growth and Policy

ELMHURST COMMUNITY PREP

"There are two reasons why we wanted to go blended: enable more small group instruction, and greater turnaround on data." – Kilian Betlach, Principal

KIPP CENTRAL CITY ACADEMY

"The main problem we'd wanted to address through blended learning was a weakness in our curriculum: feedback we were giving in writing."
— Hilah Barbot, 6th Grade Science Teacher and Team Leader

RESOURCES
To Help Define Blended Learning

As your school seeks input into the creation of a blended learning vision, staff and stakeholders will likely have questions regarding blended learning. The following resources may be useful in defining blended learning, and subsequently provide the needed context for ongoing discussions.

Article

- What is Blended Learning?

Videos

- KIPP Empower
- Mission Dolores
- Aspire ERES
- Morton Middle School
- Grant Beacon Middle School
- The Learning Accelerator: What is Blended Learning?

Websites

- Clayton Christensen Institute
- Digital Learning Now
- EdSurge
- The Learning Accelerator

Additional Steps and Resources for Setting a Clear, Purpose-driven Vision

Identify potential high-priority student skills that align with blended learning

When staff, students, and other stakeholders ask, 'Why should we go blended?' the answer must resonate with something that is important to them and/or needed at your particular school. Finding the answer will require input and ongoing discussion, but schools should consider the following as useful first steps:

- » Analyze student performance data to identify student skill gaps that blended learning might address
- » Align blended learning with existing school-wide, district, network, CMO, etc. initiatives for student learning and/or instructional strategies
- » Investigate resources, such as Digital Learning's ten benefits for blended learning, to identify additional potential reasons for going blended

Identify the relevant stakeholders to engage in discussions around a blended learning vision and create a communications plan

Communications plan should include: calendar of outreach, forms of outreach—including planned opportunities for feedback and input, methods for gathering and storing information and notes from outreach, and assigned owners → *more*

Additional Steps and Resources *(continued)*

- Separate plans should be created for various stakeholder groups, including but not limited to: staff, students, parents, district/CMO/network, and school partners

Dedicate time in collaboration meetings, professional development sessions, and/or other staff meeting times to engage staff in building a blended learning vision

Meeting(s) should focus on the following objectives:

- Creating a common understanding of blended learning
- Identifying ways blended learning can support student learning
- Identifying challenges, questions, and next steps to further explore blended learning

See NCTL's sample 'Agenda for Creating a Blended Learning Vision' for suggested activities to meet these objectives

Designate selected staff to serve on a blended learning sub-committee

Sub-committee members should have:

- High interest in blended learning and/or using technology
- Varying experience levels
- Varying content and grade level expertise
- Ability to build buy-in and consensus among stakeholders

→ *more*

Tips for setting a clear purpose-driven vision *(continued)*

The sub-committee will be tasked with:

- » Answering questions raised in reflection and discussion
- » Providing regular updates to all staff
- » Leading meetings and facilitating additional discussions around blended learning
- » Exploring additional resources intended to build support among staff
- » Determining whether sufficient interest exists among stakeholder groups to develop a vision and move onto determining readiness (see step 2)

If sufficient interest exists, develop a vision for blended learning

A vision for blended learning should:

- Be built collaboratively and ought to include input taken from staff meetings as well as outreach to stakeholders
- Satisfy a high-priority need at your school, rooted in data and clearly aligned with school-wide and/or district/CMO initiatives (see above for examples of blended learning vision at six expanded learning time blended learning schools). Your school's blended learning vision should complete the following phrase:
- "Blended learning is a promising strategy that will help develop our students' skills in..."

Schools looking to implement blended learning must clearly define and communicate a vision to all staff to gain trust, build excitement, and guide future decision-making.

STEP 2

Determine Your Readiness for Blended Learning

Goals and Objectives for This Step

- Schedule time to conduct observations, interviews, and surveys that help to identify readiness
- Understand existing technology practices and staff attitudes toward blended learning
- Understand available resources to implement blended learning
- Identify additional supports to implement blended learning

Just as reasons for going blended differ among schools, so too will each school's present capacity to achieve its vision. A full understanding of each school's readiness for blended learning allows schools to make more informed decisions, and subsequently increases the likelihood of successful implementation.

A school's readiness for blended learning is dependent on a number of factors, some of which can be observed, such as the current availability of technology and classroom management, while other factors require discussion, such as staff opinions on using technology and a clear purpose for its use (see 'Blended Learning Readiness Indicators' for a full list of readiness indicators). Along with the attitudes and practices within a school, factors

at the district or network level should also be considered in determining readiness. For instance, funding for technology typically comes from the district/network, while some schools may wish to seek autonomies in staffing, curriculum, and/or the use of professional development time in order to effectively implement blended learning. Even for schools not seeking autonomies, coordination with district curriculum and instruction staff is integral to providing support for the potential changes that are likely to occur at schools implementing blended learning. Furthermore, district/network technology and IT staff are also crucial in identifying and resolving technical issues, while also assisting with procurement decisions. Understanding the district's overall capacity and appetite for blended learning is important not only in supporting an individual school's early blended learning efforts, but also in sustaining that model in future years.

> ***A school's readiness for blended learning is dependent on a number of factors, some of which can be observed, while other factors require discussion.***

To conduct a readiness assessment, administrators, teacher leaders, and/or members of the school's blended learning subcommittee—comprising staff who are particularly committed to blended learning—should schedule time to observe classrooms, interview teachers, test technology, and share their findings with the full staff. From this investigation, some schools may find that they are not yet ready to take on blended learning, while others may use the findings to prioritize areas for improvement. The results of a readiness assessment also may impact the scale of implementation (i.e. how many grades, how many students, how many subjects, etc.), particularly in the first year. "When we worked with Education Elements," remembers Sheryl Rabbitt, the principal at Morton Middle School, "one of the first things they did was to come in and do a walk through to see how we were using technology. From that and other conversations we had, we decided it would be best to just do our blended model with our sixth graders this year, and scale up in future years."

BLENDED LEARNING
Readiness Indicators

The following readiness indicators are important to consider as schools determine whether, or how, they implement blended learning:

✓ **ALIGNMENT TO SCHOOL PRIORITIES**

Clear purpose for going blended (see Step 1)

✓ **STAFF READINESS**

Current school-based tech staff

✓ *Staff comfort with technology, data use, and new practice(s)*

✓ **EXISTING TECHNOLOGY**

Hardware and software currently used by classroom teachers

✓ **FACILITY CAPACITY**

Number of outlets, internet access points, bandwidth, download speeds, etc. that would support technology

✓ **FUNDING OPTIONS**

Existing funder(s) (e.g. district/CMO, grants, foundations)

✓ *Multi-year budget for technology*

✓ **DISTRICT SUPPORT**

Support staff for tech and instructional support

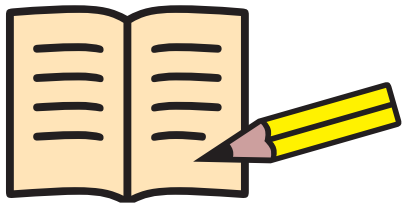
A NOTE ON *Funding and Readiness*

While a number of schools (e.g. Rocketship, KIPP Empower), have found cost savings through blended learning, funding remains a primary concern among schools and districts, especially given the significant upfront investment for those schools currently lacking sufficient hardware and software.

Although cost is a critical consideration, a dearth of funding should not, by itself, prohibit schools from exploring blended learning. Funding from foundations, state departments of education, and other competitive grants are increasingly devoted to blended learning. "There's blended learning money out there but you have to know where to look," says Kilian Betlach, the principal at Elmhurst Community Prep, who received funding from the Rogers Foundation and also support from the Oakland Unified School District for the school's blended learning pilot. Philanthropic dollars also helped to launch blended learning at Morton Middle School. To sustain that school's model, district leaders are now considering allocating existing curriculum dollars to digital content, while exploring the use of 21st-Century Community Learning Center (CCLC) funding for additional hardware.

Prices for both hardware and software also vary widely, with a growing number of cost-effective solutions. "There are already a lot of great free online tools out there which can really help prepare teachers for blended learning," says Hilah Barbot, the sixth-grade team leader at KIPP Central City Academy. Elsewhere, others are hopeful that costs will continue to go down as interest in blended learning continues to increase.

Additional Steps and Resources for Determining Readiness



Administer Surveys

Use NCTL's Blended Learning Survey to gauge staff attitudes on readiness [schools may also consider involving district staff to provide an outside perspective on their school]

Conduct Observations

- Conduct a series of quick (10 – 15 minutes) observations across a representative sample of classrooms, looking for the following:
  - » Use of technology in the classroom
  - » Classroom management
  - » Differentiation of student tasks and content
  - » Additional tips for conducting readiness observations:
  - » Emphasize that these observations are for the purposes of determining the school's readiness for blended learning and are in no way evaluative
  - » Consider utilizing members of your blended learning subcommittee to conduct observations
  - » Consider developing a rubric for each of the three indicators above (e.g. technology in the classroom, classroom management, and differentiation of student tasks and content)

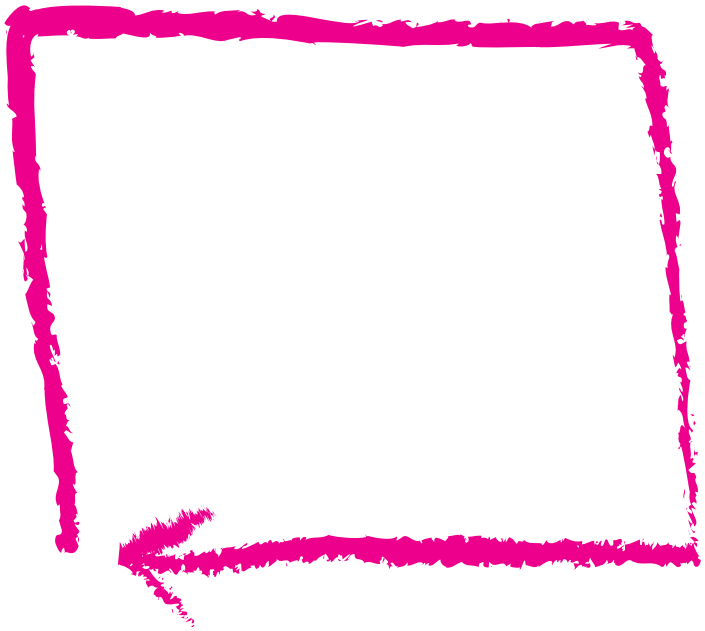
→ *more*

Additional Steps and Resources *(continued)*

- Take Inventory of Current Technology (Time: 45 to 90 minutes)
  - » Count the number of devices (e.g. desktops, laptops, tablets, etc.) that are available to students at your school and that can reliably support online browsers, such as Firefox, Chrome, and/or Internet Explorer
  - » Identify the number of outlets in various student spaces, including classrooms, libraries, and/or computer labs
  - » Test the current bandwidth speed at your school. NCTL recommends download speeds of at least 50 mbps, but school needs will vary based on the number of users and space. Consult with your district/network IT department for more guidance on bandwidth speed and needed access point(s).
- Compile Findings (Time: 3 to 5 hours)
  - » Designate members of your blended learning subcommittee to compile survey results and observation notes. These findings should indicate, inform, and help determine the following:
  - » Existing strengths that position your school well for blended learning
  - » Areas for improvement to effectively implement blended learning
  - » Common concerns in going blended
  - » Additional areas for further investigation
- Report Out to Staff (Time: 60 minutes)
  - » Dedicate time during full staff meetings, and/or professional development sessions, to share findings
  - » Discuss strengths and areas for improvement
  - » How well do our strengths position us to implement blended learning next year?
  - » Are our existing challenges too great to implement blended learning next year?
  - » Determine whether the school is ready for blended learning
  - » If yes, determine next steps and schedule additional meeting times for step 3, designing a model
- Step 3: design a model

STEP 3

Design a Blended Learning Model



Goals and Objectives for This Step

- Schedule time to generate ideas and drafts of a blended learning model
- Schedule time share model ideas with and elicit feedback from staff, parents, and students
- Determine the scope of your blended learning model (e.g. grades, subjects, students, staff, etc.)
- Identify a model that aligns with your vision and is feasible given current practices, attitudes, and resources

A blended learning model lays out the specific details by which your school will realize its vision for blended learning. More specifically, a blended learning model articulates the following:

» Grade(s) and subject(s) during which blended learning takes place
» Student and teacher actions in blended class
» Times when blended learning takes place
» Types and uses of technology in blended class
» Implementation supports for teachers

In designing a model, each school must consider whether a full school-wide roll-out is feasible the first year or whether to consider a smaller pilot program initially.

A small technology budget and/or staff apprehensions are two possible reasons schools may choose to start with a pilot. "We had thought about doing whole school in the first year," recalls Sheryl Rabbitt, Morton Middle School's principal, "but we didn't have enough money for all the technology." In fact, in four of the six schools featured in this guide, blended learning implementation began as a pilot for only a subset of students. "One of the biggest pieces of advice I would have is to start small," says Hilah Barbot, the sixth-grade lead teacher at KIPP Central City Academy. "We started with one grade and we learned so much that will make our transition to school-wide implementation much smoother."

A blended learning model may require significant changes in student and teacher schedules. Morton Middle School increased the length of its sixth-grade English and math periods from 60 to 90 minutes, to accommodate the school's three-station rotation. At Rocketship Sí Se Puede, fourth- and fifth-grade students stayed in one classroom with all of their grade-level peers and teachers throughout the day, with the exception of a 40-minute enrichment period and a 30-minute lunch. "By having all of our grade-level teachers in the same room," says Charlie Bufalino, Rocketship's manager of growth and policy, "we're completely making time flexible. The team can decide which students should spend how long on which subject."

A blended learning model may require significant changes to student and teacher schedules.

Teachers also may need more time in their day for collaboration and planning. To meet these needs, Rocketship reconfigured teacher schedules to provide more teacher collaboration time. "There's so much co-planning and coordination that needs to happen in order to make the flex classrooms work," says Farah Dilber, Rocketship's director of teaching and learning. "We've really had to change around some of our specials this year so that we can find a common planning time each day for our fourth-grade and fifth-grade teams to meet." Like Rocketship, Morton has also increased the amount of planning and collaboration time for teachers. "The rotation lessons are much stronger

because they're more differentiated," according to Sheryl Patterson, Morton's math department head. "But these lessons take a lot longer to plan, so we really need the time." Since moving to an expanded-day schedule in the 2013–14 school year, Morton's teachers now have 90 minutes each day for collaboration and/or planning, with grade-level, as well as content-level, teams meeting once each week. Still, for some teachers, the additional planning and collaboration time afforded by the longer school day is still insufficient. "I wish we could have more time as a grade-level team to meet," says Hilah Barbot, the sixth-grade lead teacher at KIPP Central City Academy. "We've learned so much this year and really need to be sharing ideas with each other every day."

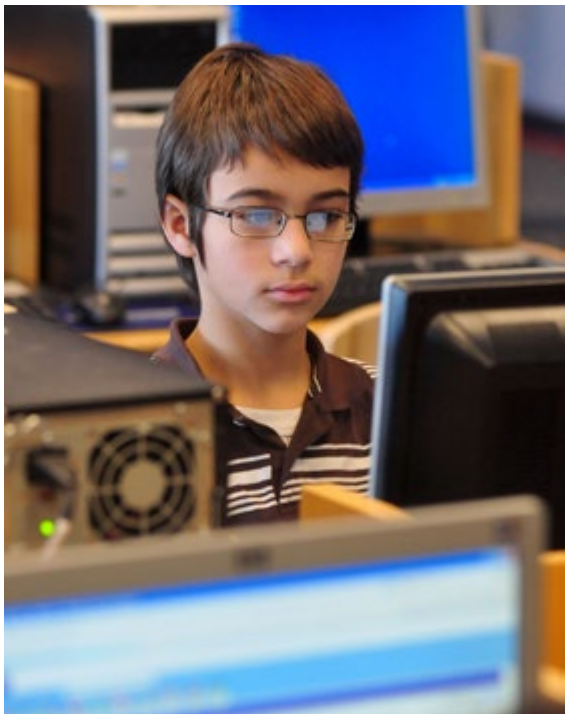
> ***"Our technology team is really kind of the eyes and ears of our blended work. We want to set aside time each week to anticipate any potential issues and look for ways to improve our model."***
> *— ALEX MAGAÑA, Principal, Grant Beacon Middle School*

Teachers aren't the only staff who have schedules that may change as their schools adopt blended learning. At Grant Beacon Middle School, current schedules include a weekly 90-minute period for members of the school's technology team to meet with the principal. During these meetings, the team plans future trainings and discusses school-wide trends in the use of technology. "Our technology team is really kind of the eyes and ears for our blended work," says Grant Principal Alex Magaña. "We want to set aside time each week to anticipate any potential issues and look for ways to improve on our model."

As schools clarify the changes required for teachers and students, they must also consider the technology needed to bring their blended learning model to life. At Grant, teachers have the option to choose between Chromebooks and iPads, depending on the student task—with the former typically chosen for written assignments, and the latter typically selected for accessing information.

Teacher choice was also a consideration in the school's decision to utilize Moodle, which allows teachers to post assignments, share videos, facilitate discussions, and/or assign homework.

Meanwhile, other schools have standardized the software and hardware that teachers and students will use. Each day, students at UP Academy Leonard, for example, are assigned to one of the school's four digital math programs during their Learning Lab period. Similarly, all sixth-grade classrooms at Morton Middle School use the same digital content programs, with the school creating a schedule of digital content to roll-out throughout the year. In fall 2013, English and math teachers at the school began using iReady in their classrooms, and then integrated Successmaker and Ten Marks in early 2014. "We staggered the introduction of the different programs," recalls Principal Sheryl Rabbitt. "That was a really good decision. We started with iReady, got that up on its feet, and about three or four months into that, then we introduced Successmaker, did a little professional development on it and started to unpack it. It's really helped to get our teachers more comfortable with bringing technology into their classrooms." The contrasting technology choices made by Morton, UP Academy Leonard, and Grant underscore another key consideration as schools create their models, namely, the level of input and autonomy given to staff in deciding what technology to use, and how to use it, to effectively strengthen their instruction.

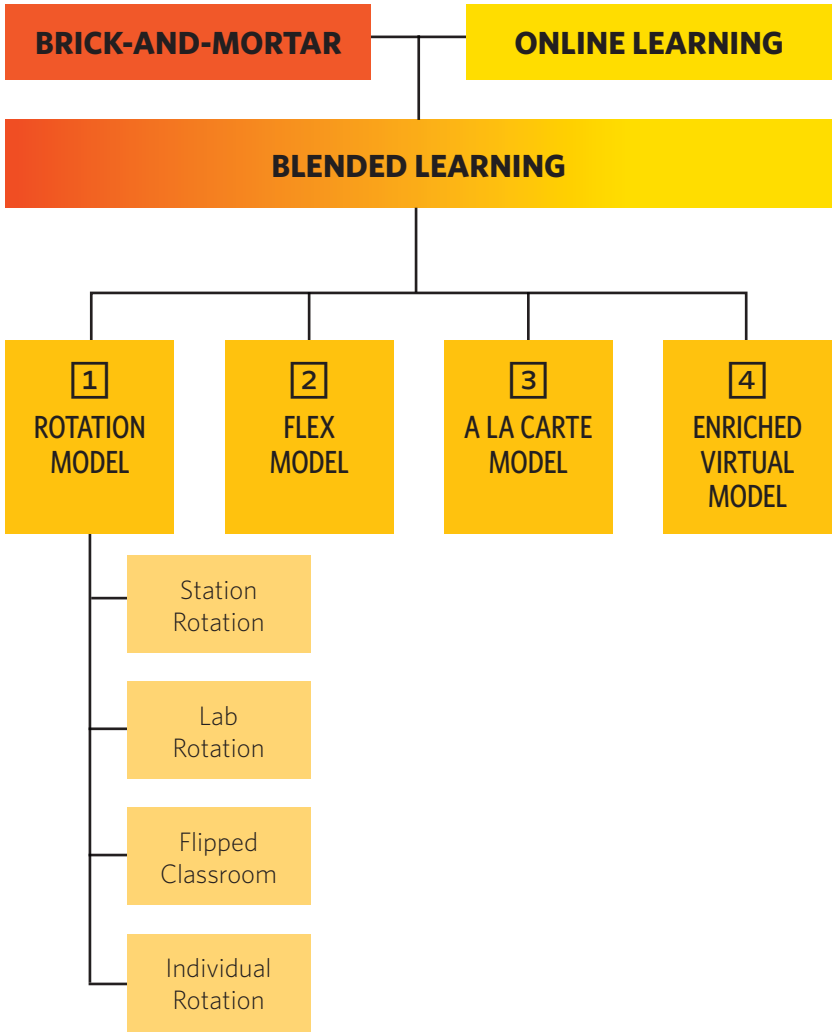


FOUR MODELS *for Blended Learning*

(FROM THE CLAYTON CHRISTENSEN INSTITUTE)

The Clayton Christensen Institute defines four general models for blended learning: rotation, flex, a la carte, and enriched virtual. One of these, the rotation model, also includes four sub-models: station rotation, lab rotation, flipped classroom, and individual rotation.

This guide explores further, school-level considerations among two sub-models under the rotation model, which uses technology within a core content class to create small student groups that rotate throughout the period (station rotation), or in a separate period dedicated for individual student practice with digital content in a lab setting (lab rotation).



FOUR GUIDING QUESTIONS *in Creating a Model*

Questions to Answer	Considerations
WHAT ARE WE TRYING TO ACCOMPLISH WITH BLENDED LEARNING?	
» Will blended align directly to core instruction, be used to remediate or accelerate individual students, or both? » Will blended build other non-content specific skills (e.g. 21st century skills?) » How does blended align with existing high-priority initiatives?	» Utilize station rotation model to integrate with core instruction » Use lab rotation for remediation or acceleration » Distinguish between software that addresses content specific skills from those that foster higher order thinking and other non-content specific skills
WHO RECEIVES BLENDED LEARNING?	
» Which grade(s) are going blended? » Which subject(s) will be blended?	» Align to priorities » Consider staff readiness » Identify types and amount of technology, and budget for additional technology
WHAT DOES A BLENDED LESSON LOOK LIKE?	
» How long is each period for blended? Will this period take place every day? » What are students doing during the period? » What are staff doing during the period? » What are the non-negotiables and flexibilities in a blended lesson?	» Define student activities to determine the length of the period and staff activities; adjust schedules if necessary » Determine amount of time students spend on digital content [varies by provider]
HOW DO WE SUPPORT STAFF TRANSITION TO BLENDED?	
» What skills should be targeted for staff support? » What formal training/collaboration will be provided for impacted staff? » How much time will be allocated to staff for the following: professional development, planning, collaboration, and data?	» Staff readiness to determine staff needs; adjust schedules if necessary » Leveraging existing staff expertise to provide guidance and support to other staff

Additional Steps and Resources for Designing a Blended Learning Model

Align the vision and goals with findings from your readiness assessment to draft a model

- Schedule time for blended learning sub-committee to review your school's vision and readiness. Address the following four guiding questions (see 'Four Guiding Questions in Creating a Model' above)
- Refer to the Christensen Institute's 'Is K-12 Blended Learning Disruptive?' for more information on blended models.

Share model design with staff, district/network officials, parents, and students

- Use school-wide meetings or professional development times to share out early drafts of the model, and include opportunities for staff to provide feedback
  - » Seek input and support from staff that will be affected by changes resulting from blended learning
  - » Identify concerns among staff and plan appropriate supports to address them
- Share initial designs with district/network officials to inform them of potential changes to schedules, purchases, etc.
- Communicate the benefits of blended learning and initial drafts of blended learning models to parents in order

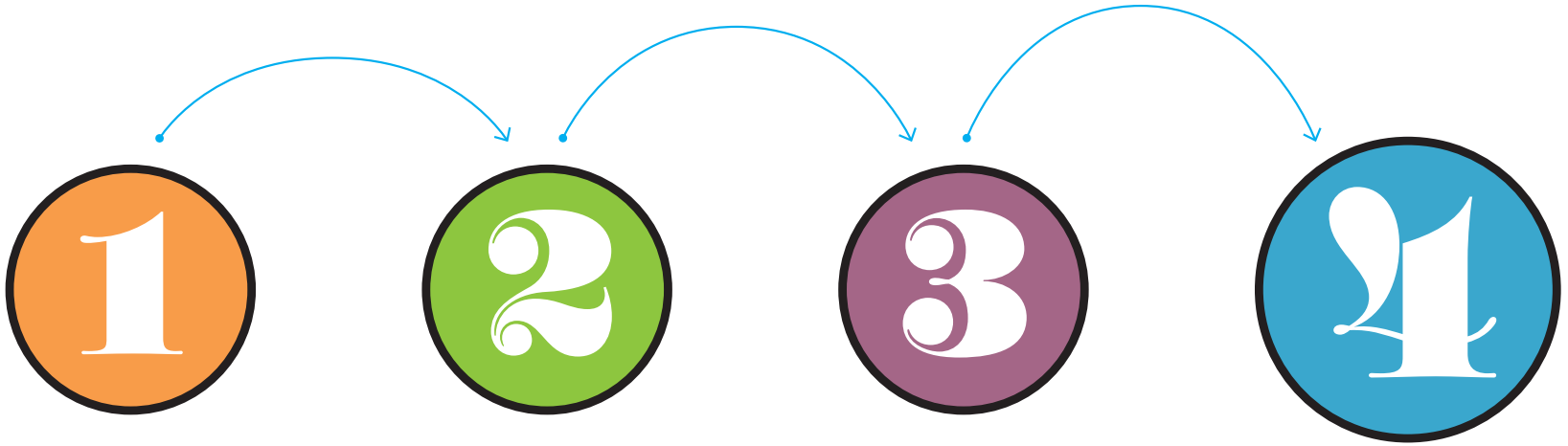
→ *more*

Additional Steps and Resources *(continued)*

to gain their support and gather input
- Engage students in conversations about ways that technology can enhance their learning

Incorporate Feedback into a Finalized Model and Report Findings out to Staff

- Dedicate time during full-staff meetings or professional development to share model
- Identify additional staff to provide insight into selecting hardware and software to support blended learning (step 4)



STEP 21

Select the Technology Needed For Your Model

Goals and Objectives for This Step

- Understand various options and costs for hardware and software
- Identify the additional hardware and software that best meets the needs of your model
- Identify potential facility upgrades or changes in order to implement your model
- Schedule time to preview and evaluate hardware and software choices
- Determine the costs for additional hardware, software, and facility upgrades

Finding the right technology tools that align to your school's design and vision for blended learning is critical for successful implementation. As the field for education software and hardware continues to expand, schools will be faced with a growing number of choices. Subsequently, identifying the right features, and knowing the right questions to ask in selecting the right technology for their model will become increasingly important (see 'Navigating the Growing EdTech Field' and 'Considerations for Education Software' above for more guidance). Technology decisions are particularly crucial not only for their role in blended classrooms; at many schools where educators wish to go blended, software and hardware also typically represent the highest upfront costs.

Hardware choices generally fall into three categories: desktops, laptops (including Chromebook and netbooks), and tablets. Although tablets and laptops have become increasing popular (particularly Chromebooks), each come with a unique set of strengths and weaknesses. Digital Learning Now finds that tablets are typically cheaper than laptops, and their touch screen capabilities allow for more engaging content. Meanwhile, although laptops are more expensive, they have a larger screen, a keyboard, and greater processing capacity in comparison to tablets. Teachers at Grant Beacon Middle School have access to both Chromebooks and iPads. "A lot of the classrooms where you see Chromebooks are those where students are submitting work online, so it's nice to have the keyboard," says Principal Alex Magaña. "On the other hand, kids using the iPads are typically using them to access online content that their teacher has put on the Moodle [school's on-line platform]." Even among laptops, no clear consensus exists as to which is the best one, and like those for other products, laptop prices vary widely. For instance, while Chromebooks are much less expensive than Macbooks ($250-$400 compared to approximately $1,000[1]), the former do not run certain digital content programs and typically do not last as long, therefore requiring more frequent replacements and repairs. Considerations around longevity underscore a need for schools to look beyond the upfront costs of purchasing a device, and to the total cost of ownership (TCO). In addition to the retail price, such considerations also should include factoring in the maintenance and life of different devices, as well as the cost of staff time—and frustration—in set-up and troubleshooting.

The number of hardware options pales in comparison to the abundance of choices in educational software: In 2013, providers of the latter had projected revenues of nearly $8 billion. Within the software market are a range of suppliers and price—from small start-ups to large textbook companies, and from free programs to those that charge over $100 per student license. Price is just one important differentiator among software providers (See "Considerations for Digital

[1] These prices are approximate. Prices will vary based on quantity and customizations your school may wish to include. EdSurge offers a look at the hardware purchasing decisions and lessons learned at ReNEW Schools (New Orleans, LA).

Content," for more information). Three of the schools featured in this guide, Rocketship Sí Se Puede, UP Academy Leonard, and Morton Middle School each chose iReady as a content provider, in part because it can adapt to individual skill needs, based on student performance on the program's pre-tests. Additionally, Sheryl Rabbitt, the principal at Morton Middle School, describes her school's rationale in choosing a program that was able to cater content to individual students, without much effort from teachers. "In our first year of blended [SY 13-14], we wanted to make the transition as easy as possible for our staff," says Rabbitt, "so we went with iReady so that teachers didn't have to be constantly picking lessons for kids to work on, and they gave us pretty good data reports." Data is one reason UP Academy Leonard also chose Ten Marks, a math program, in addition to iReady. "Ten Marks connects directly to our assessment system," says Tyler Cote, the school's Dean of Curriculum and Instruction, "so it can put together a playlist of skills each student needs to work on based on how they did on their benchmarks."

> ***Identifying the right features, and knowing the right questions to ask in selecting the right technology for their model will become increasingly important.***

In addition to these decisions, schools should also anticipate the technological infrastructure needed to ensure that hardware and software can operate simultaneously once the model is fully implemented. This includes adequate broadband speeds, and electrical outlets, along with furniture to house and possibly transport technology. Before making any purchasing decisions, Education Elements conducted a test for internet speeds throughout classrooms at Morton. Meanwhile, at Elmhurst Community Prep, a slow internet led to frustrations with technology among teachers and students, and subsequently hindered the school's blended learning launch. To ensure effective implementation, schools need not only the proper technology that will empower teachers and accelerate student learning, but also the infrastructure that will allow these tools to run smoothly.

NAVIGATING *The Growing EdTech Field*

In growing markets such as education technology, consumers will need to be increasingly intentional and informed in order to identify solutions that fit their models and their budgets. Before making any purchasing decisions, schools ought to do the following:

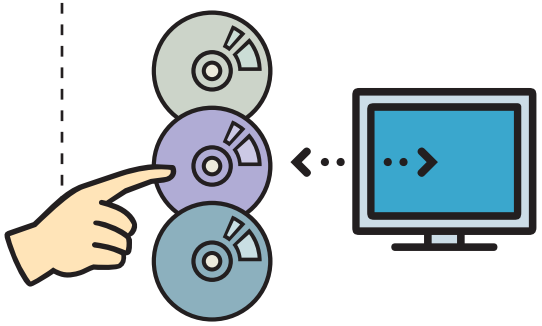
- ✓ **Align the use of technology to their vision**
  Revisit your school's vision and specify the ways in which technology will be used in your model.

- ✓ **Understand the benefits, limitations, and features of each product**
  No product is perfect, and many can be customized. Which features should your school prioritize to bring your vision and model to life?

- ✓ **Test out the product yourself (and with your staff and students)**
  Engaging multiple stakeholders in testing out various products—and collecting their feedback—will yield important insights and build buy-in.

- ✓ **Consider the needed infrastructure**
  IT and infrastructure considerations typically reside outside the expertise of instructional staff. Engage district/network technology staff in identifying technical issues and solutions.

Additional Steps and Resources for Selecting Technology



Identify software criteria that fits with your model

- Use NCTL's Digital Content: Questions to Consider to help identify the features of digital content that fit your blended model
- Refer to Education Elements' Infographic 'Digital Content Selection' for guidance on selecting digital content
- Create a budget for digital content, in coordination with the district/network

Demo potential software

- Use EdSurge's EdTech Index for a list of various content providers; many other content providers exist beyond this list, but this can be a good start for those new to the software space
- Schedule approximately 1-2 hours for selected staff to review each digital content provider, with time to provide feedback on ease of use and alignment to instruction
- Schedule approximately 1-2 hours for students to demo digital content, with time to provide feedback on ease of use and engagement

→ *more*

Additional Steps and Resources *(continued)*

Select hardware criteria that fits with your model

- Use Education Elements' Hardware Analysis for School Districts to help identify hardware features that best fit your model
- Ensure hardware is capable of running selected digital content
- Research and understand the total cost of ownership (TCO) for each device, including:
  - » Upfront purchase cost, training costs, expected life, replacement costs, and upkeep and repair costs
- Identify supplementary components for hardware, if applicable (e.g. headsets, mouse, etc.)

→ *more*

CONSIDERATIONS *For Educational Software*

In selecting digital content, schools should consider not only price, but also the following eight factors, which vary among software providers:

① Content Area(s)
② Grade Levels
③ Standards Alignment
④ Depth of Questions (Number of questions to assess each standard)
⑤ Data Reporting
⑥ Adaptability (Ability to adapt questions based on student inputs)
⑦ Assignability (Ability for teachers to assign content to students)
⑧ Reteaching

For more details on these, see 'NCTL's Digital Content Questions to Consider'.

Suggested tips for selecting technology *(continued)*

- Identify storage units and spaces that will keep hardware secure (e.g. laptop cart with lock)

Identify potential costs for facility upgrades

- Identify additional furniture (e.g. tables, desks, chairs, etc.) that allows technology to be accessible by the students and staff
- Identify additional needs in electrical outlets to support technology use in classrooms and/or lab periods as described in your model
- Identify additional broadband and wireless access points to generate adequate internet capacity

Determine the timeline for purchasing and a process for procurement

- Develop estimated costs for software, hardware, and facilities
  - » Use NCTL's Blended Learning Cost Estimator for general estimates on these costs
- Coordinate with your district/network to finalize budgets
- Create a timeline for purchasing and procurement

STEP 7

Plan and Deliver Staff Training

Goals and Objectives for this step

- Identify and prioritize staff practices that are most crucial to the effective implementation of blended learning
- Identify partner organization(s) to support teacher training or develop trainings that address these practices
- Schedule trainings that prepare staff for the launch of blended learning
- Schedule time throughout the year to continually support practices that are critical to the success of blended learning

Implementing blended learning will likely require staff in your school to assume new roles and responsibilities. Changes that may come with blended learning—in instruction, pedagogy, curriculum, planning, collaboration, data analysis, and/or classroom management—may pose challenges for staff. As a result, providing adequate time for planning and collaboration, along with ongoing supports from school leaders, is vital to the success of any school's blended learning efforts.

These supports often come from within the school, and are provided by a variety of staff in leadership roles. Morton Middle School credits much of its early success with blended learning to Elizabeth Lewis, a technology facilitator hired at the beginning of the year to oversee implementation. "Beth has been great in

helping me troubleshoot technology issues and in giving me ideas to bring technology into my lessons," says Linda Howard, a sixth-grade teacher at the school. Like Morton, Grant Beacon Middle School also dedicates technology staff to support the implementation of blended learning. Today, the school has three technology coaches who work to oversee equipment and infrastructure, while also offering staff development on integrating technology into instruction. "I try to really stay ahead on what's happening in the ed tech world," says Noah Geisel, one of the school's technology coaches, "and then I'll talk with other teachers and show them ideas for bringing that technology into their classrooms." When Rocketship shifted away from the rotational model and brought digital content into its fourth- and fifth-grade classrooms, the network hired an additional instructional coach to support teachers' transition. "We brought in someone who would come observe and give feedback to the fourth- and fifth-grade teachers once each week," says Farah Dilber, Rocketship's Director of Teaching and Learning. "This person helps them really to adjust to a completely new way of teaching."

In addition to coaching support, schools also dedicate time during school-wide professional

TEACHER SUPPORTS *To Implement Blended Learning*

Although individual teacher needs will vary, blended learning generally requires strong teacher skills in the following domains:

- ✓ **Content Expertise**
  Clear understanding of objectives and effective strategies in developing higher-order skills
- ✓ **Lesson Planning**
  Developing differentiated lessons
- ✓ **Classroom Culture**
  Clear routines and expectations in blended classrooms
- ✓ **Technology**
  Familiarity with software and hardware selected in the model, with occasional troubleshooting support
- ✓ **Assessment/Data**
  Use of data to inform lesson planning

development sessions before the school year to prepare teachers for blended learning and provide trainings throughout the year to further improve their practices. "We spent some time in the summer training staff on using the digital content," says Sheryl Rabbitt, the principal at Morton, "and then we also devoted some time to really thinking through and modeling what some classroom management techniques ought to be for students to transition between different stations and to handle the Chromebooks." Training extends beyond teachers. "Each summer, we dedicate about three weeks of training for our teacher residents [non-certified teaching staff who oversee the school's lab periods], including classroom management and troubleshooting issues in our lab," says Tyler Cote, the director of curriculum and instruction at UP Academy Leonard. "All of our teacher residents have a common set of expectations around how students enter the lab, what they bring with them to the lab, the noise level at the lab, how they use and treat the computers, how to ask for help, and how to leave the Learning Lab."

> ***Providing adequate time for planning and collaboration, along with ongoing supports from school leaders, is vital to the success of any school's blended learning efforts.***

During the academic year, schools also devote staff training time toward sharing and improving practices. Elmhurst Community Prep created a blended learning committee, which met every other week for 60 minutes to discuss effective strategies and troubleshoot issues. "Our team is very collaborative," says Shari Genereaux, an eighth-grade science teacher at Elmhurst, who was part of the school's blended learning committee. "We really talked about norming expectations and creating consistent protocols for technology use in our classrooms." Sharing practices also builds momentum and buy-in throughout the year. "We give our teachers a lot of opportunities to share what's going on in their classrooms," says Alex Magaña, the principal at Grant. "When one teacher sees their colleague doing something really neat with technology, more than anything else we can tell them, that usually gets them interested in trying it out themselves."

CHARACTERISTICS *Of Strong Blended Learning Support Staff*

Morton, Grant, and Rocketship are part of a growing trend among blended learning schools that now dedicate staff to oversee and support the implementation of blended learning. From such schools' experiences, a set of lessons learned have begun to emerge, especially regarding the characteristics, summarized below, of effective blended learning support staff:

DATA EXPERTISE

Staff who know and can interpret the data coming from various digital content programs can ease teachers' transition to blended learning

INCLUSIVITY

Staff who participate in various teacher and administrative meetings can gain a broad view of the school's needs, while also signaling the importance of blended learning to all staff

FAMILIARITY WITH THE DISTRICT/NETWORK

Staff who know the decision-making processes, and decision-makers at the district/network level, can help champion for the school's needs around blended learning

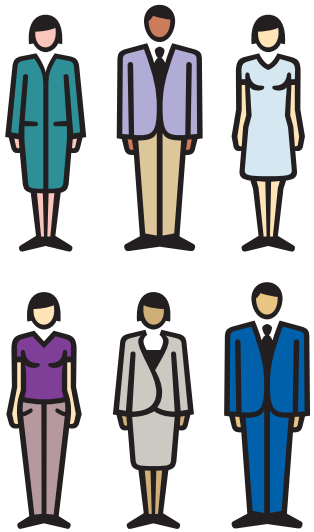
INSTRUCTIONAL EXPERTISE

Staff who know content, standards, and instructional strategies are better equipped to anticipate concerns/issues and suggest solutions. Further, instructional expertise can build credibility and trust among support staff and teachers

TECHNICAL EXPERTISE

Staff who combine instructional and technical expertise can better support and push teachers to adopt technology to strengthen their teaching

Additional Steps and Resources on Planning and Delivering Staff Training



» Identify staff needs

- Identify staff whose roles and practices will change the most as a result of blended learning

» Develop a calendar of staff supports before and during the school year

- Focus summer or early fall staff trainings on clarifying student activities and teacher roles in blended classrooms/labs, setting expectations on technology use, and classroom management techniques in blended classrooms/labs
- Focus trainings throughout late fall and early winter on disseminating promising blended practices that align to your school's model, leveraging teacher expertise as often as possible
- Focus trainings in the spring to reflect on the current year's lessons learned and on additional development needs for the upcoming year

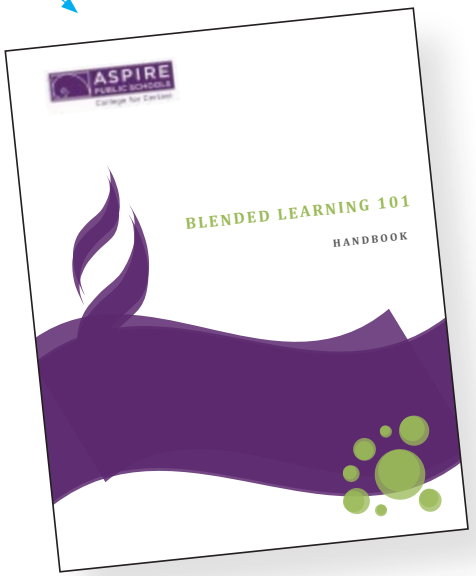
» Identify additional ongoing supports beyond whole school professional development

- Designate at least one school leadership team member to oversee the use of technology to drive and impact instruction

→ *more*

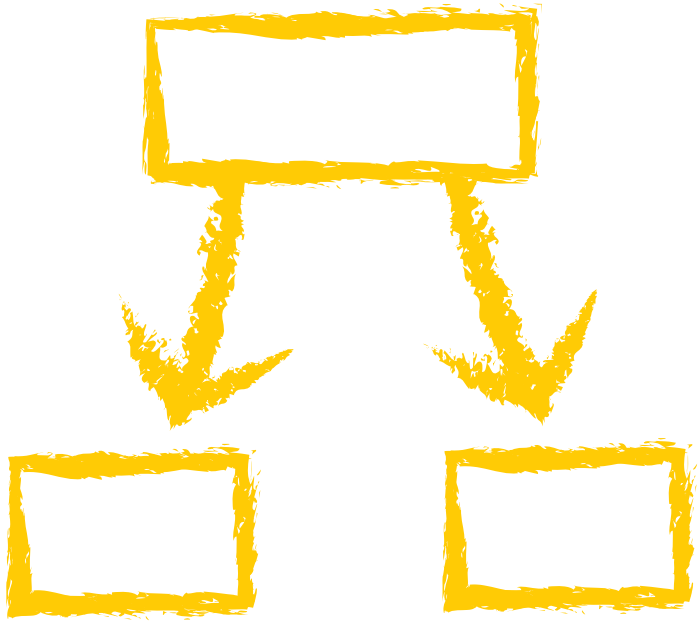
Additional Steps and Resources *(continued)*

- Deliver training and support to instructional leaders on how to integrate technology with instructional strategies and approaches
- Consult Aspire Public Schools' blended learning handbook, which includes sample lesson plans to support blended learning implementation



STEP 6

Create a Troubleshooting Plan



Goals and Objectives for This Step

- Identify technology issues that frequently arise at blended learning schools
- Develop clear protocols and processes for resolving technology issues without burdening classroom teachers
- Develop clear protocols for student activities to minimize student time off task when technology issues arise

"Nothing kills momentum for blended learning like the technology not working," says Kilian Betlach, the principal at Elmhurst Community Prep. In the fall of 2012, Elmhurst was ready to launch its model: Thousands of dollars had been spent on computers and digital content, and countless hours had been devoted to communicating and training staff. "When we turned everything on," remembers Betlach, "we realized our internet speeds couldn't support all the programs running at the same time." As a result, many teachers soon became frustrated or cautious about using technology. "We lost some teacher buy-in because of the connectivity issues," says Betlach, "and so this year has been something of a restart for us."

To avoid encountering similar issues, Grant Beacon Middle School dedicates one full-time staff person to ensure the maintenance and security of the school's technology. Meanwhile, at Morton Middle School, the school's technology facilitator, Elizabeth Lewis, frequently visits classrooms to observe and fix issues. "Shifting to a blended classroom where students are rotating from station to station is a big change for some of our teachers," says Lewis. "If we tell a teacher that one of the benefits of this change is that they can do more small-group instruction, it's a disservice to them if they then have to then go fix a computer during the time they're spending in small groups." In addition to troubleshooting, Lewis and other members of Morton's leadership team also support teachers by helping them plan activities when technology goes awry—by offering solutions for the safe storage of Chromebooks and communicating clear expectations for the safe and proper use of technology. "Each of our kids and their parents signs a use agreement," explains Lewis, "that lays out the ways students are expected to treat the devices and consequences for not following those expectations."

Grant Beacon Middle School dedicates one full-time staff person to oversee maintenance and security. Morton Middle School's technology facilitator frequently visits classrooms to observe and fix issues.

At UP Academy Leonard, students engage with technology primarily during their daily lab period, which is staffed by a teacher resident. Before the start of the school year, each teacher resident is trained to troubleshoot computer issues while also redirecting students to other learning opportunities. "We want to make sure our kids are learning as much as possible in any environment they're in," says Tyler Cote, the school's Dean of Curriculum and Instruction. "That's why each of our resident teachers knows what a student ought to be working on in case something happens with their computer during lab." UP Academy Leonard also has a system for assigning students

usernames and passwords to log into various digital content programs. "Our kids might be on Ten Marks one day, iReady another day, and IXL on a third day," says Cote. "Having three different usernames and three different passwords can cause a lot of confusion and unnecessary stress on our students and teacher residents." To remove any potential issues from multiple log-ins, Morton, and Rocketship Sí Se Puede have both partnered with Education Elements, which provides a single sign-on platform for students and teachers, as well as direct technical assistance support to individual schools. "Education Elements allows our students to log on all from the same place," says Elizabeth Lewis, Morton's technology facilitator, "but they've also been extremely helpful in thinking through some of the other technology issues that might otherwise really frustrate our students and teachers. Getting a handle on these things really allows the model to work."

Additional Steps and Resources for Creating a Troubleshooting Plan

- Create an acceptable use policy for students and parents to sign
- Designate staff to provide immediate support for minor technology issues
- Designate staff to provide regular maintenance and upkeep of devices
- Develop consistent expectations and routines in the use and treatment of devices
- Support teachers in the development of back-up activities/ materials, and clear expectations for students when technology malfunctions

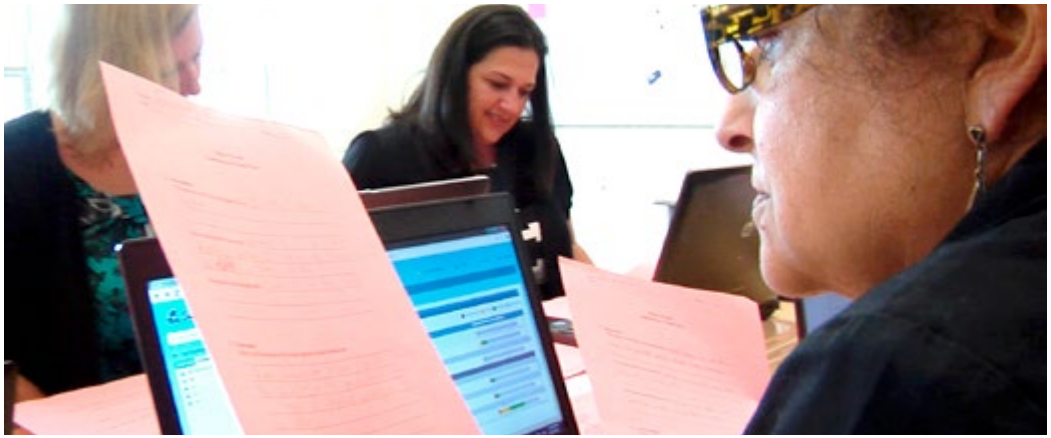
STEP 7

Reflect, Adjust, and Improve

Goals and Objectives for This Step:

- Track successes and areas for improvement in teacher practice
- Identify strengths and weaknesses of existing software and digital content to drive future purchasing decisions
- Reinforce a commitment to the continual improvement of blended learning to improve student learning

The growing momentum and interest in blended learning will bring about unforeseen innovations to the types and uses of ed tech over the coming years. Many of the schools featured in this guide are embracing the uncertain future of blended learning as an opportunity to further improve practices and products. Now in its fifth year of blended learning, Rocketship Sí Se Puede has undergone several school-wide changes to its model, including its most recent efforts with flexible classrooms. In upcoming years, Rocketship staff expect to see more changes, as they learn from past and future practices. Says Charlie Bufalino, Rocketship's Manager of Growth and Policy, "We know we haven't gotten everything perfect yet, and we see ourselves as an organization that continues to innovate."



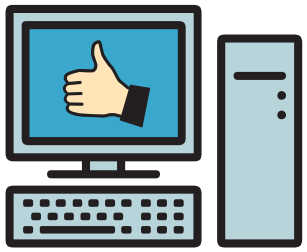
Schools that reflect on their experiences and continuously update and improve their models will drive the future of blended learning, by improving the quality of learning for students as well as the quality of work for teachers. To do so, schools must devote time and establish clear communication channels to better understand their model's impact on student learning, teacher instruction, and overall satisfaction with technology. In March 2014, near the end of their first year of blended learning implementation, staff at Morton Middle School met with district officials to discuss lessons learned, to identify practices to focus on for the following year, and to assess the quality of digital content. "When we talk to our teachers and our students, they really want blended learning," says Sheryl Rabbitt, Morton's principal. "So we know we're going to grow this model into the seventh-grade next year, and look into ways to incorporate it into our science and social studies classrooms." These discussions have implications beyond the school. "We want to hear from the school to see what programs we should keep for next year and what new ones we might want to pursue," says Mark Garceau, Director of Instructional Services at Fall River Public Schools. "A bigger reason to hear from these teachers is just to see if this is a model we might want to replicate at our other schools." Like Morton, KIPP Central City Academy also will expand its blended learning model to additional grade levels. "We learned so much about blended learning this year," recalls Hilah Barbot, the school's sixth-grade science teacher, "and we were fortunate to have collaboration time to share those lessons. As we move into whole-school implementation next year, I would like us to have enough time to share practices, see each other doing it, and also look through the data so that we can improve on what we did."

> ***Schools that reflect on their experiences and continuously update and improve their models will drive the future of blended learning.***

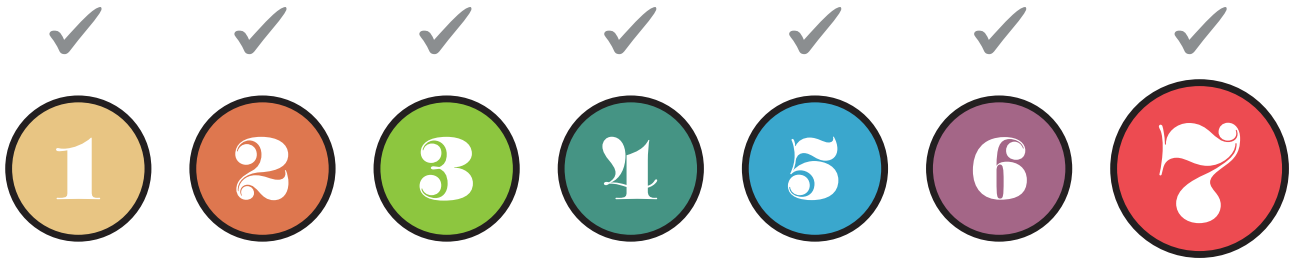
Creating opportunities for sharing and reflection also builds teacher involvement and ownership in blended learning. "Building teacher buy-in is huge for us," says Kilian Betlach, the principal

at Elmhurst Community Prep. "If we can find out where really good teacher practices with technology are happening and have the time to share those practices with other teachers, that's only going to make us stronger as a team." Alex Magaña, the principal at Grant Beacon Middle School, shares similar views on the significant role of reflecting on pracitces in order to build momentum. "We don't believe in telling our teachers exactly what blended learning should look like in their classrooms," he says. "We want this to be something that grows organically, based on teachers experimenting and sharing what works for them. That's how we really develop a culture that values technology."

Additional Steps and Resources for Creating a Progress Monitoring Plan



- Create a system to track teacher practices, staff/student attitudes, opinions on digital content, and impact on student learning throughout the year
- Define progress monitoring activities and assign owners to complete and report on them
- Schedule time for progress monitoring activities, such as observations, discussions, and surveys
- Schedule time for teachers to reflect on the impact of blended learning and share ideas for improvement, with a focus on building teacher ownership in blended learning
- Include district/network staff in progress monitoring conversations and discussions around next steps



LESSONS LEARNED

THE SIX SCHOOLS AND SEVEN STEPS described in this guide are just the beginning of the insights and innovations that will continue to emerge from expanded-time, blended learning schools. In the near future, these schools, and others like them, will look to scale, improve, and alter their blended learning models in ways that will significantly impact budgets, schedules, and practices—and subsequently, students and staff. Along with creating a culture of continuous improvement, another common theme across the schools in this guide is the vital interplay of time and technology, and in particular, the mutually catalytic effects of expanded learning time and blended learning. More specifically, blended learning has allowed schools to better personalize student learning time through self-paced, adaptive digital content; timely data reports; and/or more opportunities for small group instruction. Meanwhile, to effectively implement blended learning—that is, to fully realize the potential for technology to complement teaching—students and teachers need more time: Students need time to take advantage of opportunities for individualized learning and deepening higher order thinking skills, and teachers need time to plan, collaborate, and develop skills so

One common theme across the schools in this guide was the vital interplay of time and technology

they can successfully leverage technology in their classrooms.

OTHER LESSONS LEARNED

The continuing evolution of blended learning and its close relationship with expanded time are just two important lessons learned from practitioners and experts in the field. The following five take-aways are also crucial for schools looking to go blended:

① **BLENDED LEARNING IS A TEAM SPORT.** Successful implementation requires the buy-in and collaborative efforts of teachers, administrators, district/network officials, students, parents, and the community. Even in schools that are piloting blended learning in certain classrooms or in specific grades, blended learning is a school-wide effort that requires a shift in existing practices around instruction, classroom management, budgeting, scheduling, facilities, communication, and professional development.

② **BLENDED LEARNING DOES NOT REPLACE TEACHERS, NOR IS IT A CURE FOR BAD TEACHING.** More accurately, blended learning magnifies the quality of instruction at a school: Good instruction

becomes better with blended learning, while poor instruction can become worse. Consequently, school readiness and teacher supports are particularly important points of consideration before deciding to go blended.

③ **THE MARKET FOR ED TECH IS FRAGMENTED, AND GROWING.** Schools and districts looking to enter into blended learning will be increasingly inundated with providers and products that vary by price, features, and quality. More importantly, there is no one perfect device or software for all

schools, and research-based evidence regarding their impact on student learning is largely lacking. As a result, clarity around a school's unique purpose, readiness, and model will become increasingly important as well.

④ **WHAT YOU DO WITH TECHNOLOGY IS MORE IMPORTANT THAN HOW MUCH TECHNOLOGY YOU HAVE.** Technology, like time or money, is a resource. Like any resource, technology's potential is wholly dependent on the people and their ideas that guide its use.

⑤ **IMPLEMENTATION WILL YIELD UNFORESEEN SURPRISES**. Schools have attempted to anticipate these surprises and to mitigate any resulting problems in a number of ways—for example, by running a small pilot, creating fast and effective trouble-shooting systems and protocols, and/or devoting time for staff reflection and communication. However, no schools can fully anticipate the myriad issues that may arise during planning and implementation. Therefore, schools should not only have a clear plan for troubleshooting, but also a plan to monitor progress throughout the school year.

ADVICE FROM PRACTITIONERS

Leaders from each of the six schools profiled in this guide were asked the question, 'What's the biggest piece of advice you have for schools who are thinking about implementing blended learning?' Below are their answers:

SHERYL RABBITT

Principal at Morton Middle School

"You have to train all your staff, but in particular, your department heads and coaches need to be experts. They're going to be the ones who can really spread this throughout the school."

ELIZABETH LEWIS

Technology Facilitator at Morton Middle School

"You've got to be in classrooms to model what you want teachers to do, understand where they might need help, and even give a little help when something goes wrong."

CHARLIE BUFALINO

Manager of Growth and Policy at Rocketship Education

"This [the flexible classroom in the 4th and

5th grades] requires a whole lot of instructional planning and curricular expertise, but it creates a lot more instructional support."

FARAH DILBER

Director of Teaching and Learning at Rocketship Education

"It's really important to be clear on a few things—what your vision is for blended learning and the digital content; be clear about your philosophy; be really clear about the teachers' role; and tie it into how you hold teachers accountable."

KILIAN BETLACH

Principal at Elmhurst Community Prep

"You need to really understand and have a really confident analysis of your network capacity before you ask your teachers to do anything online."

ALEX MAGAÑA

Principal at Grant Beacon Middle School

"The most important thing is that teachers are buying in and feeling supported. On my first day at this school, you say that your job is to teach and my job is to support you. When teachers feel supported, they'll take risks."

NOAH GEISEL

Technology Coach and Foreign Language Teacher at Grant Beacon Middle School

"When you have teachers who are excited about what technology can do and they're sharing strategies with other teachers, that's how you begin to build ownership and a culture that really supports this work."

TYLER COTE

Dean of Curriculum and Instruction at UP Academy Leonard

"Staff need to be trained on the digital content, to troubleshoot and also pull the right data reports. They also need to know why your school selected certain content."

HILAH BARBOT

6th Grade Science Teacher and Team Leader at KIPP Central City Academy

"I think the biggest lesson we've learned is to start small. Truly, that is the most important thing. Start with one grade. Now we know what it can look like throughout the school."

ABOUT THE NATIONAL CENTER ON TIME AND LEARNING

The National Center on Time & Learning (NCTL) is dedicated to expanding learning time to improve student achievement and enable a well-rounded education. Through research, public policy, and technical assistance, NCTL supports national, state, and local initiatives that add significantly more school time to help children meet the demands of the 21st century and to prepare for success in college and careers.

Recently, many of the NCTL's existing partner districts and schools have expressed a growing interest in combining blended learning with expanded learning time, or have already begun efforts to personalize learning through a blended learning approach. Beginning in the 2012-13 school year, NCTL has supported blended learning planning and implementation efforts in Fall River Public Schools. Through this engagement and other ongoing efforts to support schools, blended learning implementation is an area in which NCTL plans to expand its technical assistance. For more information on ways that NCTL may provide assistance to your school or district, please visit www.timeandlearning.org.

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