BLENDING TEACHING AND TECHNOLOGY:
SIMPLE STRATEGIES FOR IMPROVED STUDENT LEARNING

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FUTURE READY SCHOOLS®
PREPARING STUDENTS FOR SUCCESS

ALLIANCE FOR EXCELLENT EDUCATION

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Acknowledgments

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The Alliance for Excellent Education** (All4Ed) is a Washington, DC–based national policy, practice, and advocacy organization dedicated to ensuring that all students, particularly those historically underserved, graduate from high school ready for success in college, work, and citizenship. During 2015, All4Ed created a separate project under its umbrella called **Future Ready Schools®** to help school districts develop comprehensive plans to achieve successful student learning outcomes by transforming instructional pedagogy and practice while simultaneously leveraging technology to personalize learning in the classroom. **www.all4ed.org** **www.futureready.org

*Cover photo by Allison Shelley/The Verbatim Agency for **American Education: Images of Teachers and Students in Action***

Blended Learning in Lindsay Unified School District

There is no such thing as a "typical" day for students in Lindsay Unified School District (LUSD), located about fifty miles southeast of Fresno in California's Central Valley. In this highly mobile rural district, where 86 percent of students qualify for free or reduced-price meals and half are learning to speak English, every day offers each of the district's 4,191 students a unique learning experience customized to that student's specific needs.[1] Students in LUSD no longer progress through the school system "factory style," moving from grade to grade at the same rate regardless of whether they have mastered all or any of the material from the prior year. Instead, the district gives each "Lindsay learner" the time and support he or she needs to become proficient in all academic content.

"For too long in Lindsay we were passing learners with 70, 80, even 90 percent of the content that we were saying they needed to master, and after a while, that catches up because they weren't actually mastering *all* of the content," says Nikolaus Namba, LUSD's director of twenty-first-century learning and technology. "That doesn't lead to being able to hand a learner off into the world confident that they have mastered the skill set necessary … to be prepared for life."[2]

To ensure that all students graduate from LUSD with the skills and knowledge they need for college, a career, and life success, district leaders adopted a new strategic plan ten years ago that focuses on implementing a performance-based system (PBS) of progression. In a PBS, also known as a competency- or proficiency-based system, students move through instructional content at a flexible pace, advancing only once they demonstrate mastery of all standards within the previous content level.[3]

But to implement this new instructional model effectively at all eight schools, the district needed a new mechanism for delivering instruction. District leaders wanted an approach that could provide access to (1) technology, (2) strong research-based programs with proven results for improving learning, and (3) opportunities to build the internal capacity of the district's educators and administrators to implement the new instructional model.[4] District leaders opted for a blended learning approach as one component of this transformation. The district started two years ago with just a handful of teachers using blended learning. This school year, district leaders began a strategic push to expand blended learning districtwide from kindergarten through high school.[5]

"Blended learning is a vehicle we are using to reach the things we outlined in our strategic design [plan]," explains Joseph Vagt, LUSD's PBS blended learning specialist. "[I]t's just a way for us to use technology in a way that provides even more opportunity for our learners."[6]

What Is Blended Learning?

Blended learning refers to a variety of practices and strategies "in which students learn in part online, with some element of control over the time, place, path, or pace of their learning; in part in a brick-and-mortar location away from home; [and] the modalities along a student's learning path are connected to provide an integrated learning experience."[7]

Lindsay Unified School District

8 schools

4,191 students

93 percent Latino

4 percent white

2 percent Asian

0.2 percent African American

0.2 percent Native American

86 percent free or reduced-price meals

52 percent English language learners

Source: California Department of Education, "District Profile: Lindsay Unified," https://www.cde.ca.gov/sdprofile/details.aspx?cds=54719930000000 (accessed November 8, 2017).

Blended learning differs from simple technology-rich instruction, where teachers use devices to support traditional instructional methods and students use technology to complete the same work at the same time, place, and pace.[8] It also requires more than simply moving some instructional content online. "The technology used for the online learning must shift content and instruction to the control of the student in at least some way for it to qualify as blended learning from the student's perspective."[9] In this way, blended learning "is a fundamental redesign

of instructional models with the goal of accelerating learning. … Blended learning models intentionally integrate technology to boost learning and leverage talent; they don't just layer technology on top of business as usual."[10] That strategic integration of technology also makes it easier for teachers to access and analyze real-time student learning data so that teachers and students can monitor student progress and adjust instruction as necessary to suit students' evolving needs.[11]

Districts implementing blended learning generally turn to one or more of seven basic structural approaches, often called "models":

1. Station rotation
2. Lab rotation
3. Individual rotation
4. Flipped classroom
5. Flex
6. A la carte
7. Enriched virtual

For a detailed description of each approach see the sidebar "Blended Learning Models."

LUSD's teachers, known as "learning facilitators," follow the station rotation model. Under this approach teachers typically begin their lesson with a "launch," a full-class direct-instruction component that introduces students to new grade-level content. From there, students move through three to four stations on a set schedule that include a combination of independent online work, peer collaboration, and one-on-one and small group work with the teacher. Each station provides differentiated instruction targeted to each student's unique needs and allows students to choose which instructional activities they want to pursue to master their specific learning objectives. Students working below grade level access activities designed to catch them up with their peers, while accelerated students are free to explore topics more deeply or progress to the next set of learning standards. At the end of the rotation, students come back together for a full-group reflection before transitioning to their next learning block.[12]

While online learning is one aspect of blended learning, it is not the only focus. Blended learning leverages technology to create new and expanded *offline* opportunities as well.

Blended Learning Models

Station Rotation: Students move through a series of centers or activity stations in the classroom on a set schedule with at least one online learning station.

Lab Rotation: Students move through a series of activity stations on a set schedule including time for online learning in a computer lab.

Individual Rotation: Students move through activity stations on individual schedules set by a teacher or software algorithm. Students visit stations specific to their needs and may not rotate through all activities offered during the rotation.

Flipped Classroom: Students complete basic instruction at home through online course work and lectures and use regular class time for teacher-guided practice and projects.

Flex: Online learning serves as the "backbone" of instruction as students move through learning activities on fluid schedules according to their needs. Teachers provide in-person support as needed while students work through content at school.

A La Carte: Students take an online course led by a teacher located remotely in addition to face-to-face courses with teachers in their school.

Enriched Virtual: Students complete most of their course work online outside of school but attend face-to-face learning sessions at school, which may not occur daily.

Source: Clayton Christensen Institute, "Blended Learning Models," https://www.blendedlearning.org/models/ (accessed November 16, 2017).

This could include freeing up time for teachers to work with students individually or providing additional opportunities for students to collaborate with classmates. "Blended learning changes the nature of instruction—both face-to-face and online—and should improve, not reduce, the quality of human interaction."[13] The online and face-to-face components of blended learning work together to create a comprehensive and cohesive learning experience for students.[14]

Most importantly, blended learning is not an end goal in and of itself. It does not prescribe a specific instructional approach. Educators can integrate blended learning strategies into a variety of instructional models that prepare students for postsecondary education and career success. Blended learning simply serves as the *mechanism or vehicle* for delivering curriculum in innovative ways to achieve a district's instructional goals and student learning outcomes. Those goals could be simple, such as offering course work that might otherwise not be available to students or facilitating "anytime, anywhere" learning. The goals could be more complex, such as personalizing learning according to students' needs and interests, giving students more ownership and responsibility for their learning, and supporting competency-based progression. Yet regardless of their specific goals, district leaders need a clear vision for what they hope to accomplish instructionally and how they want to change teaching and learning. Then they can determine how blended learning can get them there.

Implementing Blended Learning

To guide districts through this process of clarifying their instructional vision, Future Ready Schools® (FRS) developed a research-based framework and five-step planning process. These two tools, along with a collection of resources offered by FRS, support districts in leveraging digital learning strategies, like blended learning, to prepare all students for college, a career, and life success. The FRS framework separates the components of a holistic, integrated, personalized instructional approach into seven "gears," or categories of work, listed on the next page in the sidebar "Seven Gears of the Future Ready Schools® Framework." Meanwhile, the planning process flexibly guides districts as they assess their readiness for changing their instructional approach, develop and implement their instructional plan, and identify the digital learning strategies that align with the district's instructional goals.

The following sections offer a gear-by-gear analysis of the opportunities and challenges districts may face if they choose blended learning to support their instructional approach. Each section provides overarching themes district leaders should consider within each gear as well as specific strategies for implementing blended learning successfully.

Curriculum, Instruction, and Assessment

FRS does not consider blended learning an instructional model but rather a set of policies and strategies that empower teachers with knowledge and expertise to personalize learning for students in an accelerated fashion. Consequently, district leaders need a clear vision for how technology can improve and enhance the learning experience for students. Then they determine how blended learning allows them to expand that vision districtwide. The district's vision for teaching and learning, and not the technology, should drive instructional changes.

"This shouldn't be about doing this for the sake of doing blended learning. It's about using blended learning to support a new instructional model," explains Julia Freeland Fisher, director of education research at the Clayton Christensen Institute. "Educators may want to rethink curriculum, instruction, and assessment in an analog, tech-free manner. Then, after designing their ideal instructional approach, they can ask themselves, 'how can I use blended learning to make that vision feasible at scale?'"[15]

Opportunities blended learning offers districts

Because blended learning brings together multiple methods for delivering instruction, students have more choice in what and how they learn and how they demonstrate knowledge. Similarly, the addition of technology connects teachers to a wider variety of assessment options and provides quicker access to student learning data, making it easier to customize instruction to students' individual needs.

Blended Learning Resources

For additional strategies and resources for implementing an instructional approach supported by blended learning, visit futureready.org/blendedlearning.

Blended learning "opens up the ability for learning facilitators to be creative and innovative with how they interpret and deliver curriculum and how they instruct," says Vagt in LUSD. "Our learning facilitators have been able to be more strategic with their instruction and how they differentiate based on the data from the online assessment program."[16]

Barriers to implementing blended learning

Although blended learning offers opportunities for teachers to approach instruction in new and innovative ways, most instructional and assessment practices have not caught up

with effective blended learning strategies yet. Instead, many educators simply digitize traditional ways of teaching. "The entire system, both from the policy and cultural stand point, is anchored in that old way. It becomes tempting to move in the direction of digitizing the old way of doing things rather than reinventing instruction," says Fisher. "But if we simply digitize the old system, we are likely to get the same results. Instead, districts should consider blended learning as a tool to put a wedge in traditional instructional models and open up time and space in ways they never have before."[17]

Many teachers also still are building their comfort with adjusting their instructional practices to fit a blended learning environment and relinquishing a certain level of control as students take greater responsibility for directing their own learning. Additionally, finding solid curriculum materials that align with a blended learning format can prove challenging, which means teachers spend extra time creating or reworking materials to fit the format.[18]

Strategies for implementing blended learning

- **Clarify the district's instructional vision first, then decide how blended learning supports that vision districtwide.** "A culture needs to be built around what the technology will and won't be used for," says Namba in LUSD. "Because of our deep work in the performance-based and competency-based side, we had to be transparent that the technology would not replace the decisionmaking that a teacher can make. … Our learning facilitators understand that technology is a tool for accelerating learning. It is not a tool to replace anyone in the institution.[19]
- **Develop a clear and transparent process** for identifying, evaluating, selecting, and deploying educational software and digital instructional content incorporated into the blended learning environment.

Personalized Professional Learning

Blended learning supports shifts in classroom instruction, but most districts still offer teacher professional learning in traditional ways. Typically referred to as "professional development," this usually involves vague "sit-and-get" sessions that offer little practical application for teachers and result in few widespread changes in teaching practice. Meaningful professional learning around blended learning should provide educators with at least two things: (1) functional skills necessary to operate new software and technology tools and (2) examples and guidance for how teachers can integrate new technology into their practice to transform learning. Too often, though, professional learning focuses solely on the functionality of new technology and does not equip teachers with skills to implement that technology in innovative ways.

Seven Gears of the Future Ready Schools® Framework

Curriculum, Instruction, and Assessment: Districts establish a learner-centric vision, curriculum, and instructional practices that provide students with personal and authentic learning experiences, connect learning to real-world applications, and build twenty-first-century skills.

Personalized Professional Learning: Districts model and implement responsive, ongoing, and job-embedded learning for teachers and staff members and create a districtwide culture of shared ownership for professional growth.

Budget and Resources: Districts analyze and reallocate resources to personalize learning for students, seek opportunities to leverage efficiency and cost-savings on an ongoing basis, and align district and school budgets with strategic and tactical plans.

Community Partnerships: Districts collaborate, support, and engage with the local community to establish and foster relationships that support their school culture and vision.

Data and Privacy: Districts use data to inform and transform instruction and support learner agency and develop policies and procedures that protect the privacy of student data.

Robust Infrastructure: Districts ensure equity in access, from high-quality devices to the bandwidth needed to support the district's vision for teaching and learning, both inside and outside of school.

Use of Space and Time: Districts rethink, redesign, and transform learning spaces to amplify student voice, choice, and agency and promote anytime, anywhere learning opportunities for all students, including those without internet or device access at home.

Opportunities blended learning offers districts

Just as blended learning supports a more personalized learning experience for students, it supports more personalized professional learning for teachers too. "The blended environment can provide a more robust environment for meaningful professional learning," says Mike Sylofski, managing coordinator for e-learning services at the Northeastern Regional Information Center. "It provides our professionals with more choice and individualized instruction. So, some of the things we are looking for at the student level, the blended environment can help enable that personalization for educators too."[20]

A blended learning environment allows districts to align teachers' professional learning more closely with student learning. For instance, in LUSD, all teachers receive one-on-one coaching from Vagt, which he provides partly in person and partly online. During these individual training sessions, which last three to four weeks, Vagt guides each teacher through the process of developing, implementing, and evaluating blended learning strategies uniquely suited to that teacher's specific class. Vagt meets with each teacher three times a year to provide this individual support.[21] In between visits, teachers receive ongoing assistance from school-based blended learning assistants. "It was about understanding people's situations and building in individualized and personalized coaching sessions specifically for them and the follow-up afterward to see what changed in behavior to make sure the learning facilitators can exude the changes in behavior we have coached them on," says Namba.[22]

Additionally, during the district's five dedicated professional learning days, teachers spend their morning time in mandatory training and then choose three sessions from fifteen to twenty different options through which they rotate during the afternoon.[23] Since the district began offering teachers more choices in August 2016, teacher satisfaction with their professional learning has increased from 65–70 percent to 93 percent.[24] "By allowing [learning facilitators] to choose what they want to learn about, I see those preferences being implemented in the learning environment and instructional model more than when we didn't have the personalized approach," says Vagt. "The [learning facilitators] are more invested now that they have the choice. They see [professional learning] as a resource they can use right now."[25]

Barriers to implementing blended learning

Requirements in teacher contracts and state systems for awarding continuing education credits typically require teachers to meet a minimum number of in-person "seat" hours of professional learning.[26] These restrictions can make it challenging for districts to implement programs that allow teachers to direct their professional learning outside of mandated professional learning days.

Additionally, systems for teacher evaluation, recruitment, and growth management have not changed to reflect the new skills teachers need to succeed in a blended learning environment. "We need to understand what the competencies are we expect educators to have in these new environments," says Beth Rabbitt, chief executive officer of The Learning Accelerator. "Once you define those competencies, how do you assess where people are and determine the strengths and weaknesses staff have? … What innovative strategies can you use to move teachers to where they need to be … [and] how do you change your [evaluation] system so you aren't undermining the professional learning work you are trying to do?"[27]

Strategies for implementing blended learning

- **Provide professional learning opportunities to staff members that explain the functionality and applications of new technologies.** Offer examples and "use cases" that demonstrate how new technologies can improve the delivery of instructional content to students. Then give teachers time to practice and experiment with new technologies and blended learning strategies.
- **Create on-demand professional learning for staff members.** Develop and curate a collection of podcasts and YouTube videos that explain and demonstrate blended learning approaches.
- **Support peer-to-peer professional learning.** Identify teachers and staff members willing to serve as informal "coaches" to advise and support colleagues who need help integrating blended learning strategies.

Budget and Resources

School districts must develop a multiyear financial plan to implement blended learning successfully. The plan should outline how the district will cover ongoing costs of sustaining a blended learning structural approach once the district exhausts any start-up funding, such as foundation grants or facilities bonds.[28] These costs will vary depending on the blended learning strategies implemented (see

"Blended Learning Models" on page 2), pace for expanding those strategies districtwide, and local market conditions.[29] Yet regardless of the strategies a district implements, the financial plan should include cost estimates and funding sources for the following:

- Human capital
- Project management
- Professional learning
- Infrastructure
- Device acquisition, maintenance, and upgrades
- Education software and digital content
- Communications
- Evaluation of initiative[30]

Fortunately, districts can leverage many of their existing resources since blended learning strategies allow districts to schedule and use traditional and online resources creatively in additional ways. Moving to a blended learning environment empowers districts to leverage personnel, time, and course work in a creative manner.

Opportunities blended learning offers districts

Because blended learning integrates multiple methods for delivering instruction, it offers districts greater flexibility to schedule and assign school staff members in different ways, which can increase efficiency. Districts also can share staff members and resources between schools to offer additional learning opportunities to students.[31]

Barriers to implementing blended learning

For some districts, costs associated with starting and sustaining blended learning strategies present a barrier. Most states base their school-funding models on student enrollment, and not student learning, so district budgets rely on state revenue based on the number of students who attend school on site. Such funding structures could impede blended learning formats where students spend only a portion of their time learning in traditional school buildings and the rest of their time learning off site.[32]

Furthermore, while blended learning strategies can provide some efficiencies, districts should not expect significant cost savings over traditional instructional formats. Districts may need to hire additional staff members to provide necessary technical support to teachers and students and/or to monitor students working online independently.

Strategies for implementing blended learning

- **Explore alternative staffing arrangements to maximize existing staff capacity.** Districts can develop teacher leaders into technical coaches who split their time between teaching in the classroom and providing technical and/or instructional support to their colleagues or tap paraprofessionals to supervise students working independently.
- **Share costs and leverage resources with other districts.** Districts can join or form consortia to command better pricing from providers of online content and services and hardware or partner with neighboring districts to offer additional courses and learning experiences to students.

Community Partnerships

"Digital communications, online communities, social media, and digital learning environments can facilitate partnerships between schools, families, and the broader community."[33] Blended learning leverages these platforms to connect schools and students to the community by (1) offering alternative ways to bring community members into schools and (2) supporting community-based learning opportunities for students outside of school.

Opportunities blended learning offers districts

By incorporating technology, blended learning expands the definition of community to include locations beyond a school's immediate neighborhoods. Video chat and online experiences can connect schools with industry representatives and experts located at great distances or offer an alternative when local community members cannot visit in person or students are unable to travel off site. "Much like online courses and online tutoring can be resources in a blended model, an online expert could be a resource too to bring these out-of-school experiences into the school more efficiently," says Fisher at the Clayton Christensen Institute.[34]

Districts also can use blended strategies to engage parents more fully in student learning by providing them real-time access to students' course work and performance through the same online learning management systems that teachers and students use to track student progress.[35] Some of these technology platforms even allow districts to manage and track community-based learning opportunities for students, making it easier for districts to offer out-of-school learning more broadly. Additionally, since blended learning allows students to complete part of their

learning online at their own pace, the blended learning structural approach frees up time during the school day to allow students to engage in these community-based experiences.[36]

Barriers to implementing blended learning

Some districts may encounter resistance from parents and community members about implementing a new instructional model supported by blended learning. District leaders will need to communicate effectively with parents and other community members to correct any misconceptions about how the new blended learning strategies will operate. Districts also will need to plan for staffing and infrastructure needs to support platforms designed to manage out-of-school learning opportunities for students.

Strategies for implementing blended learning

- **Communicate with parents and community members proactively.** Explain the instructional and operational changes blended learning supports using terms that clearly articulate benefits the district expects.
- **Partner with local government agencies, civic groups, libraries, nonprofit organizations, businesses, and institutions of higher education to extend student learning into the community.** Local organizations and businesses can offer students out-of-school learning experiences, provide experts to visit classrooms in person or over video chat, or collect and refurbish devices for students who need them at home.

Data and Privacy

Individual student learning data, often called "small data," provides real-time information to teachers, parents, and students about a student's academic performance through robust formative assessment and analysis. Combined with teacher observation and tailored instructional strategies, leveraging personal data empowers students to assume more ownership of their learning, creating a more personalized learning experience supported by high-quality blended learning.

As technology becomes an increasing presence in students' lives inside and outside of school, though, school districts must assume a critical role in protecting the personal information of students and their families. Consequently, districts must ensure that their blended learning processes and protocols adhere to federal and state laws and local school board policies.

Opportunities blended learning offers districts

Blended learning provides teachers with access to real-time student learning data to create a comprehensive picture of student performance across content areas. This allows the teacher easily to see where a student is excelling and where the student needs additional support, enabling the teacher to implement appropriate instructional strategies as necessary. Additionally, the integration of blended learning strategies provides districts with new opportunities to develop more robust and transparent privacy policies and practices.

Barriers to implementing blended learning

The various platforms that track student performance in different academic areas do not always integrate with one another, limiting a teacher's ability to access student data across tools to create a holistic picture of student performance and needs. "Learning facilitators and administrators can only absorb so much data from fifteen different systems," says Namba in LUSD. "Everybody wants to have their own internal data and analytics, but that is useless when I have to teach my staff to work across multiple tools. You can have a data researcher in the district, but the learning facilitators need to be able to review and use data to impact instruction for the learner."[37]

Additionally, districts and schools often lack adequate and transparent policies and practices for protecting the privacy of student data. Teachers and district personnel who regularly work with student data, which may include digital documents as well as traditional records, frequently are not aware of the laws and policies that protect the privacy of that data.

Strategies for implementing blended learning

- **Hire appropriate personnel to support the effective use of student data.** Data managers help teachers knit together and understand student data, while a chief privacy officer oversees the district's policies and procedures to meet federal and state laws protecting student privacy. Teachers and school administrators also can serve as informal advisors to review the district's data and privacy policies and practices.
- **Develop a transparent privacy policy and plan** with input from school staff and community members and an action emergency plan to deal with a potential data breach. The district should make these plans available to the public on the district's website along with links to state and federal privacy laws.

- **Train school staff members and students on how to protect student data.** Conduct regular robust professional learning for teachers, librarians, school administrators, and all other district personnel who work with private student information. Educate students on using online and digital resources safely, including social networking sites, to ensure they protect themselves adequately from exposure.

Robust Infrastructure

While technology should not drive instructional changes, districts need to consider how infrastructure constraints impact their ability to expand approaches supported by blended learning. If technology does not function properly or reliably, does not add value, or becomes a distraction or obstacle to instruction, teachers may abandon blended learning strategies in favor of traditional practices. Consequently, districts should account for the capabilities and shortcomings of their existing broadband and wireless networks when selecting blended learning strategies. They also need to plan for anticipated connectivity needs in years to come as blended learning expands or student enrollment grows.

Furthermore, while most blend learning structural approaches include dedicated time for student-directed online learning, districts do not have to provide every student with a personal device if that does not support a district's instructional vision and learning goals. "With the obsession of devices, school systems risk forgetting that a classroom could run a highly effective blended model with five computers rather than one-to-one," says Fisher. "It's not just about cramming technology into the hands of every child."[38]

Opportunities blended learning offers districts

In recent years, districts have expanded broadband and wireless network access for students and staff members, partly because of increased federal funds from E-rate, which makes internet connectivity and other telecommunications services more affordable for schools and libraries. This improved access supports anytime, anywhere learning opportunities for students. Consequently, districts can develop flexible spaces that support the variety of content-delivery methods that are central to blended learning. This expanded connectivity also empowers adaptive software, which levels to a student's ability, allowing for greater differentiation and further enabling a blended instructional approach.

Barriers to implementing blended learning

Although nearly all schools have internet access, broadband connections and school Wi-Fi networks are sometimes insufficient to provide students and teachers with reliable access to online resources incorporated into blended learning. In fact, 6.5 million students lack high-speed internet access and nearly 10,000 schools report having insufficient Wi-Fi in their classrooms.[39] Even if students have high-speed internet access at school, though, a lack of home access remains an issue affecting approximately 5 million households with school-age children nationwide.[40] This lack of home access limits a district's ability to implement blended learning strategies, like a flipped classroom, that require students to review online course work and lectures at home. Additionally, providing adequate technical and instructional support for students and teachers can prove challenging. Many districts also lack the ability to monitor their technology usage across schools and identify underutilized tools.

Strategies for implementing blended learning

- **Identify the problem blended learning will solve *before* buying any devices.**
- **Build out the district's back-end infrastructure to ensure sufficient connectivity to support its selected blended learning structural approach.** (See "Blended Learning Models" on page 2 for specific formats.)
- **Find creative ways to overcome community network limitations.** During School Year 2014–15, LUSD expanded its own Wi-Fi network to provide free home internet access to its students. The district placed additional service antennae on school and city buildings and installed Wi-Fi hotspots in the homes of school employees and students to provide extended wireless connectivity, which allows students to access the district's network from their homes just as they do at school.[41]

Use of Space and Time

To realize the full potential that blended learning offers, district leaders must identify the time and space constraints limiting student learning and determine how blended learning strategies can overcome those limitations. By integrating technology and online content, blended learning offers students additional opportunities to pursue self-paced course work independently. But district leaders should use blended strategies to facilitate new offline learning opportunities as well.

When implemented effectively, blended learning provides opportunities for teachers to engage with students in meaningful ways and develop instructional activities and assessments that allow students to apply knowledge more deeply. But district leaders must balance the time required of teachers to create online and offline content for students. The integration of blended learning strategies should create more time for teachers to support students, not less. "Blended learning can't just be about asking more of teachers," cautions Fisher. "You need to make sure the technology takes something off teachers' plates [too]."[42]

As blended learning opportunities increase, school leaders can create more flexible spaces throughout their schools. This empowers additional opportunities for students to learn anytime and anywhere as well as in comfortable, more personal learning environments. For instance, in LUSD, many teachers have abandoned traditional rows of desks in favor of more flexible seating arrangements that place students in groups to promote collaboration. The school district also removed the walls between several of its classrooms to create expansive learning labs where four to six teachers share approximately 180 students. This format exposes students to a variety of learning experiences and provides them with ready access to teachers from different levels allowing learners to move fluidly between content areas. "The learners don't have to wait to progress [to new content] because the next learning facilitator is already there in the shared space with them," explains Vagt.[43]

Opportunities blended learning offers districts

Because blended learning allows students to work on different activities simultaneously, teachers can provide targeted instruction to individual students and small groups while the rest of the class works independently. Furthermore, since students are free to work at their own pace, and complete some classwork outside of school hours, students gain in-school time to apply their knowledge, work on projects, and pursue community-based learning opportunities. Additionally, blended learning can provide students with course work and instructional opportunities across districts that otherwise would not be available at their school.

Barriers to implementing blended learning

Most state regulations require students physically to attend classes at school to receive course credit and do not award credit for course work completed online or outside of school.[44] Similarly, teachers and school administrators may be reluctant to stray from a master schedule that regulates time during the school day and course structure, which can hamstring blended learning. Finally, shifting to blended learning could feel burdensome to teachers if they must create all their offline and online content and assessments without relief from other responsibilities.

Strategies for implementing blended learning

- **Align students' learning environment with the district's teaching and learning goals and its selected blended learning structural approach.** (See "Blended Learning Models" on page 2 for each format's specific needs.)
- **Use existing furniture to reconfigure classrooms** to create multiple learning stations, spaces for individual and collaborative student work, and areas for direct instruction to support the variety of learning experiences a blended learning environment offers.
- **Rework class and school day schedules** to give teachers time to experiment with blended learning and share their challenges and successes with their colleagues.

Conclusion

Effectively implementing a new instructional approach supported by blended learning requires more than online content and fancy devices. District leaders must identify the instructional goals and learning outcomes they want to accomplish to ensure that all students, particularly those historically underserved, graduate from high school ready for success in postsecondary education, a career, and life. Once district leaders have a clear vision for how the district wants to transform teaching and learning, they can choose the blended learning strategies and related platforms, content, and devices that support those intentions.[45]

Like many school districts, even LUSD initially started a bit backward by rushing to implement a one-to-one device initiative before clarifying the district's instructional goals, Namba admits. It is a mistake he now advises other districts against. "Technology was potentially going to be the solution," Namba says. "But backfilling the training and access was something we probably should have spent more

time considering before we jumped into it. … It's just one of those lessons learned that we try to tout to others at this point. … Fully develop your implementation plan about the effective use of technology and the path that needs to be built before you just start passing things out."[46]

Employing blended learning strategies effectively requires districts to rethink how they deliver content to students; how they structure classes; and how they allocate time, space, resources, and personnel.[47] It requires teachers to shift their instructional practices and allow students to assume ownership of their learning. As districts reimagine the school learning environment, blended learning represents a useful vehicle for supporting more personalized instruction for students, particularly across schools.

"What we're talking about is not an easy transformation," Namba says, "but when [a district] goes through that process, it allows you to transform not just the culture of your district and of your learners. It changes the entire community."[48]

Photo by Allison Shelley/The Verbatim Agency for
American Education: Images of Teachers and Students in Action

Endnotes

1 California Department of Education, "District Profile: Lindsay Unified," https://www.cde.ca.gov/sdprofile/details.aspx?cds=54719930000000 (accessed November 8, 2017).

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