Knocking down barriers

How California superintendents are implementing blended learning

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INTRODUCTION

School districts across the United States are implementing blended learning to boost student achievement. We convened several California school district superintendents to answer the question:

> *What are the barriers, real or perceived, to implementing blended learning in your district?*

After a morning of answering that question, we then asked:

> *Have you found solutions to or ways around these barriers?*

Given that 93 percent of California's public school students are enrolled in district schools,[1] the answers matter, as superintendents around the state struggle with antiquated regulations and processes that inhibit their ability to innovate and better serve students. Our hypothesis, borne out of the discussion, was that for each barrier one superintendent identified, another superintendent in the room would have a solution. This paper summarizes the answers to both of these questions. We hope it will help other California superintendents who are struggling to implement high-quality blended learning work around these barriers by employing cage-busting leadership.[2]

The barriers the superintendents identified fell into three categories:

1. Redesigning teacher roles given state policy and teachers union contract provisions;

2. Purchasing and managing technology and infrastructure;

3. Recognizing online classes as valid for the University of California and California State University systems.

REDESIGNING TEACHER ROLES

As district schools adopt blended learning, teachers remain crucial, but the nature of their jobs changes. Current education code and provisions in teachers union contracts uphold the traditional model and constitute barriers to implementing innovative staffing designs that better leverage blended learning. Although policy changes would help in many of these cases, the superintendents were able to find strategies to overcome these hurdles.

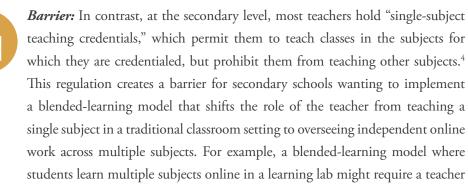### Teacher credentialing limitations at the elementary level

Barrier: Most elementary school teachers hold a "multiple subject teaching credential," which permits them to teach in a traditional, self-contained classroom that covers multiple subjects, but prohibits them from teaching exclusively a single subject.[3] This creates a barrier for elementary schools wanting to implement a blended-learning model that shifts the role of the teacher from teaching multiple subjects to teaching just one. For example, a blended-learning program might have a specialized math teacher, a specialized English Language Arts (ELA) teacher, and so on for all students in a grade, rather than several multiple-subject teachers.

Workaround: Teach English Language Development. One district, which had a large percentage of English Language Learner (ELL) students, avoided this credentialing obstacle by having each of its teachers lead an English Language Development (ELD) block each school day. By adding ELD to teachers' regular teaching duties, teachers did not need to gain authorization to teach only a single subject because they were teaching multiple subjects—a specialized subject plus ELD—every day.

Teacher credentialing limitations at the secondary level

Barrier: In contrast, at the secondary level, most teachers hold "single-subject teaching credentials," which permit them to teach classes in the subjects for which they are credentialed, but prohibit them from teaching other subjects.[4] This regulation creates a barrier for secondary schools wanting to implement a blended-learning model that shifts the role of the teacher from teaching a single subject in a traditional classroom setting to overseeing independent online work across multiple subjects. For example, a blended-learning model where students learn multiple subjects online in a learning lab might require a teacher

credentialed in one subject to supervise students as they work on online courses for subjects she is not certified to teach.

Workaround: Teach together in open spaces. Rather than having students in smaller classrooms with one teacher, schools can place students in a large, open space—to the extent the facilities allow—that is supervised by multiple teachers who together are credentialed in all the subjects of the students' online coursework. In this scenario, even if a math-credentialed teacher were to help a student with a history assignment, for example, the school would still be under compliance because a history-credentialed teacher would also be supervising—and working with—the students.

Immediate supervision

Barrier: In California, average daily attendance (ADA) is computed based on the attendance of students "while engaged in educational activities … under the immediate supervision and control of an employee of the district or county office who possessed a valid certification document, registered as required by law."[5] Many blended-learning programs use staffing models in which paraprofessionals, rather than certified teachers, supervise students during independent online work. Because paraprofessionals lack certification, the time students spend under their watch cannot be included in ADA calculations. In order for a school to receive full funding, students must be within the line of sight of a certified teacher.

Workaround: Open up lines of sight. When paraprofessionals are primarily overseeing and supporting students, a certified teacher is still technically supervising the class if she can see the students. One district physically created lines of sight with glass walls and larger classrooms so that one certified teacher could be the instructional lead for what were previously two classrooms of students. Meanwhile, paraprofessionals provided extra support for students in this larger class context. Creating flexible facilities can enable flexibility in staffing.

Class-size limits

Barrier: The California Education Code prescribes a class-size limit for kindergarten through 8th grade,[6] and many teachers union contracts impose further limits on class size as well. These limits can restrict innovative blended-learning staffing models. For example, in a Station Rotation model, a teacher may be able to handle a large class of 34 students because she only has to give targeted instruction to small groups of 12 students at a time while other students work independently online or on projects in groups at other stations. Statute and contracts can limit these innovations, however.

Workaround: Take the average. In grades 4 through 8, schools can circumvent class-size limits by taking the average number of students per teacher across the grade-level. This makes it possible to have more students in a class at one time—for example, during a particular rotation—because another part of the day may involve fewer students with a teacher. Ultimately, the key is that the overall ratio of certified adults to students in all grade-level classes must comply with the regulations. In kindergarten through 3rd grade, however, the regulations do not allow the same leeway as in grades 4 through 8.

In addition to taking the average, districts may have to create side agreements, discussed below, to handle teachers union contract provisions relating to class size.

Teachers union contracts

Barrier: Provisions in teachers union contracts require that teachers have a specified number of hours of instructional and non-instructional time each school day. These provisions often result in strictly structured blocks of time when teachers are engaged in either activity to ensure compliance. Because blended learning requires more flexibility in the timing of teacher action—like non-instructional data analysis or instructional small-group interventions based on data—these hourly provisions can prevent effective and flexible allocation of teacher time.

Workaround: Create a side-letter agreement. One district created a side-letter agreement with the teachers union that would redefine a "professional day" to better fit the new school model. The document still delineated that a teacher must reach the prescribed instructional and non-instructional total minutes, but gave the flexibility to allocate these hours in a week rather than a day.

11 TIPS FOR IMPLEMENTING BLENDED LEARNING

The superintendents at the convening also offered some tips to help their peers implement blended learning:

1. **Use qualified substitutes.** Because most teachers aren't trained in blended settings, one district provided specialized training for substitute teachers who were highly qualified to supervise and support students in the computer lab while certified teachers received professional development.

2. **Train learning coaches.** One district trained learning coaches, or paraprofessionals, to provide extra support to students in blended-learning programs. It used the Technological Pedagogical Content Knowledge (TPACK) framework to describe the kinds of knowledge needed by the coaches for effective pedagogical practice in a blended-learning setting.

3. **Develop a professional development center.** One district developed a learning facility for teachers to model blended learning for each other and then replicate successful techniques for students.

4. **Create professional development time outside of the school day.** One district set up two-hour blended-learning training sessions twice a week after school and offered teachers salary schedule credit if they attended. Another school district offered non-school day professional development for pay to incentivize attendance.

5. **Encourage teachers to design.** To avoid the initial teacher skepticism about blended learning, one district allowed its teachers to shape the blended-learning program for their school. This led to ownership and willingness to stick it out during the difficult first few months of implementation.

6. **Rely on early adopters.** Teachers who are enthusiastic about blended learning can help build a critical mass of interest, trust, and learning results. Give these "early adopters" forums to share their experiences.

7. **Ensure clear communication channels.** District administrators and teachers should be familiar with the shared vision and direction of the blended-learning program. District and school leaders should make it clear to teachers that they will have adequate support, and that failure is not just OK, it is likely a part of achieving success.

8. **Do not bring administrators into the classroom early on.** Instead, create a culture of trust by emphasizing a non-evaluative climate and providing qualified classroom coaches to observe and offer feedback rather than to ensure compliance or success.

9. **Build a wall around cost.** In an environment of cuts to other programs, many will try to take funds intended for blended learning and try to repurpose them toward existing or traditional programs. To protect the innovation, make a point to ensure that new salaries are coming from a specific grant or restricted fund that cannot be repurposed.

10. **Make some decisions centrally.** A key part of blended learning is empowering individual schools to have ownership over their new learning models, but also knowing what decisions to make centrally so as to take advantage of economies of scale. District leadership, for example, can make purchasing decisions more efficient by managing major hardware and software purchases and thus cutting down on incompatibilities between hardware and software.

11. **Know what's free.** Free tools—such as Google Apps for Education, Khan Academy, Moodle, and Activate Instruction—can allow districts to understand what kind of learning software they need before taking the plunge to a larger purchase. In some cases, these tools may be all that is needed.

TECHNOLOGY AND INFRASTRUCTURE

In addition to building solutions around innovative staffing design, superintendents face challenges in acquiring and managing the technology and infrastructure needed to implement blended learning. Ensuring access to the right devices and learning environments requires working around layers of policy that were not built for the quick iteration cycles of many blended-learning programs. Below are some of these barriers and workarounds the superintendents identified for successfully implementing the technology and infrastructure component of blended learning.

Public contract code slow and unwieldy

Barrier: According to the California Public Contract Code, districts must put out for bid any contracts involving an expenditure of more than $50,000.[7] This code applies not only to technology, but also to furniture and other classroom items. Districts must release a request for proposal (RFP) detailing the items they want with specific evaluation standards—that is, specific qualities on which they will judge the item or service offered by vendors.

This requirement poses a challenge to schools wanting to implement blended learning for two reasons. First, writing an effective RFP is time consuming, which means that the cost of getting the RFP wrong on the first go-round is high. Second, blended-learning design must often be precise to create effectively a particular learning model. The district often knows exactly what it wants to purchase—for example, a specific type of furniture made by a specific company with a specific color scheme that goes beyond "just desks"—but writing an RFP that has salient evaluation standards that effectively shut out other "comparable" but ultimately unworkable options that could substitute at a lower cost is challenging.

Workaround: Borrow first, then customize. Working through this barrier involves a two-part strategy. First, don't reinvent the wheel. Look to other districts with similar blended-learning visions and use their RFPs for similar items as a template. Second, with the basic RFP in place, tailor accordingly to avoid picking the "low-cost solution" that might not be the "right solution."

Adoption of digital instructional materials

Barrier: A few district superintendents expressed fear that state-adopted instructional material requirements would restrict them from being able to purchase digital content that is not on the state-approved instructional material list.

Workaround: This is a perceived barrier, not a real one. Thanks to the passage of California A.B. 1246 in 2012, districts are no longer required to purchase from the state-approved instructional material list.[8]

BYOD and free public education clause

Barrier: The California State Constitution guarantees every student "a free school"—that is, pubic schools cannot require students to pay fees or make purchases to access an education.[9] A bring your own device (BYOD) program could be considered a violation of this clause if it creates a burden on students and families to purchase devices.

Workaround: Don't require BYOD. Rather than requiring students to bring devices to school, districts can *allow* students to bring devices by emphasizing that devices are not prohibited. The school can then provide devices for students who do not already own them. This is similar to how districts currently handle graphing calculators and P.E. uniforms. The key is in the phrasing.

Providing sufficient access at school and home

Barrier: Digital textbooks can be viable instructional materials, but according to the California Education Code, districts must ensure that all students have access to technology-based materials at both school and home to meet the definition of "sufficient instructional materials."[10]

Workarounds: Implement BYOD or seek outside funding. A BYOD program can ensure that students have access to a device. Those who already own devices that can access digital content can use their devices at both school and home. As stated earlier, the district can then provide devices—and potentially Internet access—for students who do not already own them. This lowers the financial burden on the district, as it does not have to purchase and manage all the

devices; it also allows some students the comfort and familiarity of using their own devices.

Alternatively, a few districts reported solving this problem not by issuing a bond measure, but by raising money from foundations or innovation grants. The funds allowed them to both purchase more devices and build more open classroom spaces conducive to blended learning. Many superintendents have noted that the ultimate key is to treat devices as a line item in the operating budget, not as a capital expense.

POSTSECONDARY APPROVAL

Just as policies written for the traditional classroom limit the possibilities for innovative staffing and technology in blended-learning schools, public higher education institutions in California maintain processes that complicate the transition to college for some students in blended-learning settings. The current system does not ensure effectively that a student's digital coursework is eligible for university entry requirements.

Barrier: The University of California (UC) and California State University (CSU) systems require entering freshmen to complete certain courses in high school called "A-G" courses. Only courses that the UC and CSU systems have approved officially as "A-G" courses can fulfill these requirements. A chief concern among parents and other community stakeholders in California is whether the UC and CSU systems will accept credits for online courses. The "A-G" approval process for online courses has changed dramatically in the past few years with the work now falling under the purview UC and CSU officials. Because of the large number of courses needing approval and the limited staff available to review these courses, there exists a significant time lag before a course is officially approved.[11]

Workaround: Don't designate courses as online. One district noted that transcripts do not need to state whether a course was taken in an online or face-to-face setting. Rather than face potential issues around approval, this district simply printed transcripts with the title of the course.

Ultimately, as the number of high school students taking online courses increases in the future, creating a more streamlined and trustworthy process for approving online courses will be important.

CONCLUSION

According to the California school district superintendents we talked to at the convening, the majority of barriers that districts in California face when implementing blended learning are around managing the changing role of teachers in a blended-learning setting, including teacher credentialing limitations, provisions around supervision of students, class-size limits, and teachers union contracts. Although districts also encounter barriers in acquiring the technology and infrastructure needed for a shift to blended learning, California policy puts the most limits on the ability to innovate in staffing design.

Additionally, even as policy and regulatory changes would help, we found that there were few barriers that created an ironclad obstacle to implementing blended learning. Even issues rooted in the California Education Code did not prevent the rollout of blended learning. Leaders committed to innovation can find windows of flexibility to accomplish their vision of blended learning, despite difficult restrictions or competing interests. With a strategy built around cooperating with community stakeholders, communicating student-centered, blended-learning goals, and documenting support along the way, districts have the capacity to forge important strides toward creating student-centered learning.

NOTES

[1] By district schools, we mean non-charter public schools. We calculated this number by subtracting the total charter school enrollment from the total public school enrollment for the 2011–12 school year. See "Fingertip Facts on Education in California—*CalEdFacts,*" California Department of Education, May 31, 2013, http://www.cde.ca.gov/ds/sd/cb/ceffingertipfacts.asp (accessed August 1, 2014).

[2] The phrase "cage-busting leadership" comes from Rick Hess's book of the same name, which describes how leaders can look beyond the policies that hinder progress and find or create pathways toward their ultimate goals. See Frederick M. Hess, *Cage-Busting Leadership* (Boston: Harvard Education Press, 2013).

[3] Teachers have two avenues to circumvent this credentialing rule, both of which require additional coursework that can be costly and take up time. First, the holder of a multiple subject credential can complete 20 semester hours of coursework or 10 semester hours of upper division or graduate coursework at an accredited institution in the particular subject she would like to teach. Second, the governing board of a district may authorize the holder of a multiple subject credential to teach a subject in departmentalized classes if the teacher has completed at least 12 semester units or six upper division or graduate units in that subject. Because many teachers with multiple subject credentials have not completed this level of coursework in specific subjects, they are often ineligible for these limited pathways to authorization. See California Education Code, Section 44256b, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=44001-45000&file=44250-44277 (accessed August 6, 2014).

[4] California Education Code, Section 44258, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=44001-45000&file=44250-44277 (accessed August 8, 2014).

[5] California Education Code, Section 46300a, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=46001-47000&file=46300-46307.1 (accessed August 1, 2014).

[6] For kindergarten, the average class size cannot exceed 31 students, and no class may be larger than 33 students, see California Education Code, Section 41378, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=41001-42000&file=41370-41382 (accessed August 7, 2014). For grades 1 through 3, the average class size cannot exceed 30 students, and no class may be larger than 32 students, see California Education Code, Section 41376a, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=41001-42000&file=41370-41382 (accessed August 7, 2014). For grades 4 through 8, the average number of students per teacher cannot exceed the greater of 29.9 or the district's average number of students per teacher in 1964, see California Education Code, Section 41376b, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=41001-42000&file=41370-41382 (accessed August 7, 2014).

[7] California Education Code, Section 20111a, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=pcc&group=20001-21000&file=20110-20118.4 (accessed August 1, 2014).

[8] California A.B. 1246: Instructional materials, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB1246 (accessed August 1, 2014).

[9] California Constitution, Article 9, Section 5, http://www.leginfo.ca.gov/.const/.article_9 (accessed August 1, 2014).

[10] California Education Code, Section 60119c, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=60001-61000&file=60117-60119 (accessed August 8, 2014). "Instructional Materials FAQ," California Department of Education, http://www.cde.ca.gov/ci/cr/cf/imfrpfaq1.asp (accessed August 1, 2014).

[11] "A-G Guide," University of California, http://www.ucop.edu/agguide/ (accessed August 8, 2014).

About the Institute

The Clayton Christensen Institute for Disruptive Innovation is a nonprofit, nonpartisan think tank dedicated to improving the world through disruptive innovation. Founded on the theories of Harvard professor Clayton M. Christensen, the Institute offers a unique framework for understanding many of society's most pressing problems. Its mission is ambitious but clear: work to shape and elevate the conversation surrounding these issues through rigorous research and public outreach. With an initial focus on education and health care, the Institute is redefining the way policymakers, community leaders, and innovators address the problems of our day by distilling and promoting the transformational power of disruptive innovation.

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