Creating a Path to Student-Centered Learning

Colton Joint Unified School District (CJUSD) is a large suburban school district located east of Los Angeles in San Bernardino County, California. The district serves a diverse enrollment of 23,288 students, 83 percent of whom are Latino and 81 percent receive free or reduced-priced meals. CJUSD maintains eighteen elementary schools (grades K–6), four middle schools (grades 7–8), three comprehensive high schools (grades 9–12), and a continuation high school.

Although personalized instruction long has been a goal for the district, CJUSD catalyzed its effort to leverage technology fully to enhance that goal by joining the Future Ready Schools® (FRS) network in 2014. That year, Superintendent Jerry Almendarez took the Future Ready District Pledge and set the district on a path to creating student-centered learning using a unifying framework to provide direction. His enthusiasm for change motivated the district leadership team, teachers, and staff to increase their professional capacity on technology integration by participating in FRS’s regional professional learning events, face-to-face workshops, and virtual support. This commitment to change laid the groundwork for CJUSD's effort to redefine learning in the district and articulate a new profile of a high school graduate.

Using the FRS Interactive Planning Dashboard and data tools available in the district, CJUSD’s leadership team devised both a strategic plan and technology plan to guide development of specific personalized learning programs for students. Leveraging these tools, CJUSD outlines the following goals in its strategic and technology plans, which remain the focus of the district’s efforts:

- Double the percentage of students who perform at the proficient and advanced levels on the California Assessment of Student Performance and Progress (CAASPP) System tests.
- Graduate at least 95 percent of students with a high school diploma.
- Prepare 100 percent of students for college entrance and/or certification in a career/technical field.
- Improve academic achievement utilizing powerful learning experiences aligned with the California Department of Education’s content standards.
- Improve professional development opportunities for all staff geared toward improving achievement for all students and increasing employee efficiency.
- Provide an educational environment that prepares students for the transition to college and/or a technical career.
- Build an infrastructure, supply hardware, and provide software and technical support to all students, teachers, administrators, paraprofessionals, support staff, parents, and the community at large.
- Provide adequate school facilities that enhance student performance throughout CJUSD.

During the last four years, CJUSD improved technology access in the district, increased professional learning opportunities for teachers, and applied a distributive leadership approach at the district level to support technology implementation at the school level. This case study describes those improvements and highlights how the district identified challenges related to equity at the high school level, particularly among students who are underperforming.

Incremental Progress in Technology Integration

District administrators credit their adoption of Google for Education (G Suite) in 2015 as the kickoff for the district’s technology transition. Implementing G Suite and other online and interactive learning tools like BrainPOP, Lexia, and Nearpod sparked a wave of motivation among CJUSD elementary and middle school teachers to identify creative ways to engage students in their learning experience using technology. One K–6 teacher explains that “[teachers] initially started using technology to assess and to check for understanding [among different student groups]. Lately, we’re using it more for creativity … for students to produce and show their understanding through the use of technology.” For instance, in some schools, students use Google Hangouts and Google Slides to demonstrate reading comprehension. Students conduct virtual interviews with authors of books they read in class and collaborate with students in schools all over the world on classwork or presentations.

On a practical end, teachers use technology to review student performance data quickly to identify gaps in understanding and provide real-time feedback. Another middle school teacher explains that leveraging technology
changed the way she teaches. “Technology really helped me become more of an effective facilitator in the classroom and to practice student-centered learning,” she said. “[With technology], students decide what tool to use to show their learning. They get to pick who they want to work with, whether alone or if they want to work collaboratively. Then as the facilitator, I walk around and intervene as needed and the students get to take full ownership of their own learning experience. … [T]hey become creative in their own ways.”

In 2016, a CJUSD leadership team composed of curriculum and technology specialists focused on increasing student access to devices by providing Chromebooks at each grade level. Differences in resources at that district’s nineteen Title I schools compared to its eight non–Title I schools translated to inconsistencies in the degrees of device access among schools. To address these inconsistencies, the district leadership team leveraged the state’s Local Control and Accountability Plan (LCAP) funds to level the playing field in terms of the amount of device access at the school level. On average, CJUSD maintains a 1:3 device-to-student ratio across all twenty-seven schools. The district uses Chromebooks to supplement existing classroom devices, which in some cases include computers that are out of date and lack the functionality necessary for students to engage fully in high-quality digital learning experiences. District administrators expect to reach a 1:1 device-to-student ratio by the end of School Year (SY) 2018–19.

During SY 2016–17, district leaders realized that technology is a tool and to make a significant impact on student learning, they needed to design professional learning opportunities for teachers that included training on instructional models to guide the design, development, and integration of technology into lesson planning. CJUSD expanded its professional learning offerings to include multiple modules on the Substitution, Augmentation, Modification, and Redefinition (SAMR) instructional model. The SAMR model explains the spectrum of technology use in the classroom and helps teachers improve the design, development, and implementation of lessons, activities, and assessments that are student-centered and infuse technology effectively as a tool.

Teachers participated in day-long trainings offered by the district or completed a series of online trainings dedicated to improving their knowledge on SAMR, project-based learning, and a combination of applications ranging in functionality from video editing, to online safety management and interactive lesson planning (e.g., WeVideo, GoGuardian®, Nearpod). When asked to reflect on noticeable change among teachers regarding the use of technology, one district leader recalls being pleased with seeing that “early adopters at the elementary and middle schools are really taking charge of their professional growth and attending more conferences, online professional learning, and local professional development offered at the district. Even now, they are really essential to pulling those other teachers along who have less buy-in to the changes we’re making in the district.”

At the direction of the superintendent, the district also enacted a more collaborative approach to leadership among administrators by allowing more autonomy for the Information Technology Department (ITD) to implement an intentional hiring process to create a team that provides technical assistance at each school site. The ITD developed positions at the district level for technology

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**Colton Joint Unified School District**

colton.k12.ca.us

27 schools
992 teachers
23,288 students
83 percent Latino
7 percent white
6 percent African American
3 percent Asian
1 percent two or more races
<1 percent American Indian or Native American
<1 percent Native Hawaiian or Pacific Islander
81 percent receive free or reduced-priced meals
25 percent English language learners

support specialists, information technology specialists, and technology managers, who provide training and resources to school-based staff on computing, networking capabilities, data management and reporting, district-provided software, and digital citizenship. According to the district leadership team, these combined efforts pushed teachers to “go deeper, beyond the tool, to creating students who are producers and not just consumers of information.”

Creating Equitable Access to Advanced Placement Course Work

By the beginning of SY 2017–18, CJUSD had defined its vision for a twenty-first-century learner and improved its implementation of technology-focused initiatives. Despite their efforts, district leaders wanted to address inequity further. So they joined the FRS Digital Equity Program in 2018 to expand personalized learning at the high school level and increase opportunities for underperforming students to take Advanced Placement (AP) courses. SY 2017–18 data from the California Longitudinal Pupil Achievement Data System (CALPADS) shows discrepancies in AP course offerings, participation, and passing rates among the district’s schools (see figure 1 below). Specifically, Colton High School, which serves the highest percentage of socioeconomically disadvantaged students (87 percent), has the lowest average AP exam passing rate in the district (28 percent). This passing rate is 7 to 12 percentage points lower than the passing rates at the district’s two other comprehensive high schools.

Additionally, Colton High School offers only twelve AP courses—the fewest of any school in the district. Furthermore, only 13.1 percent of Colton High School’s students complete California’s A–G course requirements, an indicator of a student’s ability to meet the minimum eligibility requirements for acceptance into the state’s public university system. District leaders decided to address these opportunity gaps through their participation in the FRS Digital Equity Program since the challenges align with the district’s strategic goals and would push leadership to identify innovative ways to leverage technology to increase learning opportunities for high school students, particularly related to their postsecondary school success.

During its five months in the FRS Digital Equity Program, CJUSD’s leadership analyzed data on AP course offerings and student performance and arranged a series of planning meetings to develop an equitable, technology-driven solution to the opportunity gap in high school AP course completion. This review showed a need for a solution that addressed variabilities in rigor and content between advanced courses offered at the different high schools. District leaders also identified that differences in students’ preparedness to participate in advanced course work influenced differences in the AP passing rates. Meetings

<table>
<thead>
<tr>
<th>High School</th>
<th>Colton High School</th>
<th>Bloomington High School</th>
<th>Grand Terrace High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Student Enrollment</td>
<td>1,956</td>
<td>2,322</td>
<td>2,114</td>
</tr>
<tr>
<td>Percentage of Students from Low-Income Families</td>
<td>87%</td>
<td>85%</td>
<td>71%</td>
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<tr>
<td>AP Courses Available</td>
<td>12</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>AP Teachers</td>
<td>11</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Students Enrolled in AP Classes</td>
<td>600</td>
<td>607</td>
<td>602</td>
</tr>
<tr>
<td>AP Exam Passing Rate</td>
<td>28%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>A–G Completion Rate</td>
<td>13.1%</td>
<td>21.6%</td>
<td>28.2%</td>
</tr>
</tbody>
</table>

with school-level leadership also identified three focus areas for the prospective technology solution: (1) leverage master teachers within the district network, (2) promote cross-campus collaboration, and (3) support innovative thinking about how technology could transform the use of space within a school and promote opportunities for distance learning. The district’s solution, known as CJUSD’s Telepresence Course Access Program (TCAP), includes the following goals:

- Expand access and availability to AP courses across all high school campuses.
- Reduce the need to collapse AP courses due to low enrollment by connecting students with teachers on other campuses.
- Capitalize on teacher subject-area expertise across campuses for team teaching and expanded student-learning opportunities.
- Increase the percentage of students prepared for college as measured by the College/Career Indicator reports from California’s accountability and continuous improvement system.
- Maximize the use of funding through the LCAP to increase access to AP courses and increase passing rates on the College Board examination.
- Build a highly interactive learning environment that is rich in content and engagement and available to all students to ensure equity of access to AP courses.
- Expand the scope and content of AP curricula and preparation through interactive, cross-campus collaboration and access to broader learning experiences outside the traditional classroom.

After articulating the goals and developing a projected timeline for the TCAP, CJUSD leaders built a team that included staff members from the business services and educational services departments, the director of information technology, principals from each high school, curriculum specialists, and AP teachers to support implementation of the effort. The team visited the corporate offices at Cisco Systems in San Jose, California, to learn about the telepresence technology available and identify possible ways to support students’ AP course completion. The visit proved very informative; the group came away with a desire to clarify the AP course access issues facing CJUSD students in the context of the district’s newly minted profile of a high school graduate.

Although the district’s initial plan called for identifying an appropriate platform to host virtual AP courses and pilot the telepresence program in a single high school, those steps were suspended. Instead, the CJUSD district team engaged students in selecting the design, functionality, and scope of activities included in the technology platform that undergirds the TCAP. A sample of high school students, AP teachers, and school leaders currently are working with project leads at Cisco Systems to outline the needs of a CJUSD AP student in terms of access to the instructor, ability to participate actively in course discussions and activities, and other engagement needs that will dictate the capabilities required of a technological tool to provide greater course access and participation among high school students. CJUSD plans to launch the TCAP in SY 2019–20.

**Challenges to Implementation**

CJUSD’s leaders face several challenges to implementing the district’s TCAP effectively. Currently, the district does not have enough teachers qualified to lead AP courses. District leaders also are having difficulty identifying current and new staff members who are interested in and committed to technology-enhanced learning and have the technical skills to lead an AP course using telepresence.

Supporting a telepresence program also presents an ongoing financial need for the district. The TCAP requires more efficient broadband internet, a designated learning space, and more advanced technological tools (e.g., individual laptops for teachers, high-fidelity audio and video tools, etc.) in participating high schools. Consequently, CJUSD must create a sustainable funding plan and articulate a budget for potential improvements to hardware and infrastructure associated with the project. District leadership invited facilities managers and school building representatives to brainstorm what those improvements might be.

Additionally, teachers in the district currently use their own devices to support their instruction since the school-provided devices are out of date. There is a lag in mind shift among some district leadership about the need to provide teaching devices suitable for instruction at all grade levels. Challenges also exist with creating a sustainable funding model with the district’s fiscal department for refreshing teachers’ devices. Although CJUSD developed local competitive grant funding to supplement its technology initiatives broadly (e.g., device upgrades, library refresh,
etc.), it does not have a plan in place to sustain the TCAP. The district actively is exploring cost structures for the pilot implementation, ongoing costs for the project, and potential funding solutions.

Coordinating course catalogs and class schedules between high schools is challenging as well. AP course schedules are misaligned across high schools such that the timing around when a course is offered may not fit with a student’s planned course load in a given year. While the need for expanded course offerings is evident, CJUSD invited all principals from the district’s comprehensive and continuation high schools to clarify logistics of implementing the TCAP in their respective contexts to allow more convenient scheduling. The district tasked principals with identifying and resolving issues related to scheduling, transportation, and ongoing teacher support for courses.

Lessons Learned from Colton Joint Unified School District

Administrators and teachers from Colton Joint Unified School District (CJUSD) offer the following recommendations to other district leaders starting their Future Ready Schools® journey or those addressing inequities among their students:

1. Shadow or interview other district leaders who previously implemented similar programs to inform the planning effort. Firsthand experiences offer a great opportunity to learn from successes and mistakes of other leaders.

2. Modeling expectations in culture, professional learning, and curiosity at the district leadership and school board levels is critical. “For districts new to this process, it’s important to understand that it’s OK to make mistakes, it’s OK to take risks, and it’s OK to be wrong sometimes,” says CJUSD Superintendent Jerry Almendarez. “As [district leaders], we often believe we are the ones that have all the answers. Just know that it’s OK to let go and trust your people. Once you do that, you realize that most people are here for the right reasons and are working toward the same positive outcomes.”

3. Policies for articulating technology needs, processes for requesting funding, and implementation plans at the district level need to be in place first before the district hits the ground running.

4. Change does not happen overnight; it takes years to accomplish progress. Identify a core group of early adopters in the district to expedite the rate of change and engender buy-in among teachers in the district.

5. Establish a healthy culture and trust among district leadership and teachers. Creating an environment where leaders feel safe to experiment is essential to fueling innovation.

Finally, while district and school leaders express enthusiasm and support for the use of technology to enhance learning, they do not model behaviors they expect of teachers and staff. “Most principals will purchase the tools and create opportunities for their teachers to increase their professional learning, but they will not model the types of technology integration that they expect,” explains one district leader. “They [the principals] consider the task of technology integration the teacher’s responsibility.” The same challenge is true at the executive leadership level where district leaders expect that principals will leverage technology to improve efficiency and communication within schools, but they do not apply that same expectation to district-level processes.

Next Steps in CJUSD’s Transformation

In line with its strategic and technology plans and the goals described in the TPAC, CJUSD is pursuing three additional initiatives that will continue to drive the district’s technology integration effort forward. Each of the efforts described below affirms the district’s commitment and accountability to transform student learning; engender support and buy-in from parents, community members, and school board leaders; and transform learning environments within the district to provide students with increased opportunities to leverage technology.

Increasing school board involvement

CJUSD district leaders garnered full support of their school board through the board’s adoption of a formal commitment to plan and implement personalized learning in the district to achieve greater digital equity among students. On May 17, 2018, the CJUSD school board voted on and signed a resolution pledging to “work with students, teachers, families, and community members to create learner-centered environments with the help and support of the Future Ready Schools® network in all schools served by the district and in so doing, affirms its
dedication to providing all students with equal access and opportunity to reach their full potential.” This resolution established a joint commitment between CJUSD’s district leadership and school board to student-centered learning and reversing inequities affecting students in the district. District administrators seek to build on this resolution and push the school board to support the district’s personalized learning efforts further with the proper budget, policies, and procedural changes to ensure successful implementation.

Creating digital citizenship for parents
CJUSD’s Language Support Services Department is piloting a new program to work with a small group of parents on basic computer skills and internet use. The parent program focuses on digital citizenship and responsible use of the internet, much like the instruction students receive. However, the parent program has an expanded focus that shows parents how to use computers to communicate with school staff members about their children, access continuing education resources available through the district, and manage their children’s safe use of devices for school work. Through the program, parents receive Chromebooks during their training and have access to the district’s team of technology leaders to support them in understanding how to use the computer efficiently. The program is in its first full year of operation. District leadership expects to expand the program in SY 2019–20.

Expanding the role of school libraries
While the district now makes student device access and teacher professional learning two focuses in its transformation efforts, district leaders want to take more intentional steps to modernize school library and media spaces to better support student growth in literacy and comprehension. In SY 2017–18, elementary schools received small competitive grants to use their libraries as extensions of the classroom; enhance collaboration between teachers and librarians; and promote vertical articulation, sequencing, and coordination of instructional goals. With the success of that effort, CJUSD district leadership lobbied for a specific line item in the SY 2018–19 budget dedicated to creating twenty-first-century libraries at the middle and high school levels.

Although the addition of this line item still is pending, district leaders hope to use additional funding to target new tools to enhance learning and reading comprehension among students and provide more widespread access to content inside and outside of school. If approved, these dedicated funds would allow CJUSD to purchase a suite of software available to students and library professionals, design more innovative learning spaces, and extend the utility of the library space for students. District leaders’ current wish list includes tools like World Book, an online platform that creates access points to libraries worldwide, and OverDrive, an application that allows students to download e-books and audio books, stream live content, and access online databases.

Conclusion
CJUSD continues to make significant steps in creating an equitable educational experience for its students supported by the use of technology and a personalized learning approach. During the last four years, the district leadership team intentionally created pockets of innovation at each grade level, enhanced opportunities to infuse technology in instruction through teachers’ professional learning, and increased the availability of resources where possible. Through its participation in the FRS Digital Equity Program, the district identified a specific challenge with providing equitable access to AP courses among the district’s lowest-performing high school students, planned how to resolve that inequity, and created accountability around the effort through support from the school board. Despite the district’s implementation challenges, CJUSD remains committed to providing high-quality learning experiences for all students and ensuring that the students with the fewest advantages receive the resources they need to succeed.
Endnotes

1 “The LCAP is a three-year plan that describes the goals, actions, services, and expenditures to support positive student outcomes that address state and local priorities. The LCAP provides an opportunity for local educational agencies (LEAs) to share their stories of how, what, and why programs and services are selected to meet their local needs.” California Department of Education, “Local Control and Accountability Plan (LCAP),” https://www.cde.ca.gov/re/lc/ (accessed December 4, 2018).