Panasonic

Closing the Opportunity Gap: How One District is Achieving that Goal

At Downey High School in California, students are developing and honing skills for the 21st century workforce.

Table of Contents

THE JOURNAL

The benefits of technology-enabled learning spaces in today's K-12 schools are well documented. Research consistently shows that such an environment not only improves teaching and learning, but also helps foster and support real-world career skills.

As noted by P. B. Garrett, associate provost and chief academic technology officer at George Washington University, "Investing in the creation of experiential learning spaces proves essential to preparing students for today's marketplace."

Dozens of other educational researchers support that fact, adding that significant improvements to learning outcomes result from technology-enabled active learning environments. In his paper, "What Makes New Learning Spaces Work? New Research on the Importance of Social Context," J.D. Walker, research associate at the University of Minnesota, says, "New technology-enhanced active learning spaces improves students' learning outcomes and experiences."

As a result of these improvements, many public school districts throughout the country are looking at exactly how to achieve a technology-enabled learning environment where students can develop and hone skills for the 21st century workforce.

One of those districts is the Downey Unified School District (DUSD), located 13 miles south of Los Angeles, Calif. DUSD is a high-performing district with a graduation rate close to 95 percent.

Recently, DUSD launched a major initiative to showcase the district's vision for 21st century teaching and learning by deploying a full range of technology in two buildings at Downey High School, one of two high schools in the district.

For the last six months of 2014, THE Journal closely followed the development and implementation of new technology-enabled learning spaces at Downey High School, as district leaders progressed through three key phases: evaluation and planning, deployment and training, and evaluation and next steps.

What follows is a concise report about the district's process and progress that ultimately resulted in Downey High School being chosen a 2014-2015 Microsoft Showcase School and global leader in preparing students for success in the workplace.

PHASE I: EVALUATION AND PLANNING

"We are proud of the fact that we are closing the opportunity gap in our district," says Roger Brossmer, Asst. Superintendent, Certificated HR, at Downey Unified School District. "Today, we have a graduation rate close to 95 percent. But we're not really satisfied with just graduation. Our goal is to be college- and career-ready."

To accomplish that goal, Downey's District Leadership Team started with a Strategic Plan in 2013 where the district's vision, mission, and shared values were identified and affirmed.

The overarching mission was clear: That all students would graduate with a 21st century education that would insure three objectives — that students were both college- and career-ready, globally competitive, and citizens of strong character.

The focus of the district's plan initially was on two buildings at Downey High School —Buildings A and D. "Everything we envisioned for those two buildings had to complement and support our mission," Brossmer says. That mission centered around the Four C's: critical thinking, communication, collaboration, and creativity to which Downey had added a fifth C for Citizenship.

"Our new superintendent, Dr. John Garcia, had a pretty clear vision of what he wanted to see," Brossmer explains. "And he didn't want us to start with the tools or technology. Instead, he wanted us to start with what we wanted to accomplish — what student outcomes we wanted — and then figure out what tools would help us get there."

From the beginning, then, technology — though an integral part of the plan — was just one piece of how the district proposed to help their students achieve 21st century skills. The plan also involved reimaging and restructuring the classes to provide for flexibility and varied learning arrangements.

As Garrett points out, "Implementing dynamic active learning pedagogies is best facilitated by fusing technology with classroom elements such as furnishings, lighting and writing surfaces" — the big picture, so to speak.

That big picture at Downey included everything from technology to the furniture in the classrooms to where students would keep their stuff. "In both buildings A and

D, we now have all mobile furniture," Brossmer explains. "All chairs and tables are on wheels, so they can easily be stacked to the side.

"But when you decide on modular furniture," he continues, "you must also consider what to do with all of the students' stuff." The answer at Downey was for all classrooms to have cubbies. "While it might seem like a minor part of the plan," Brossmer says, "little things like that are important."

Choosing the right partner. From the beginning, the District Leadership team knew that choosing the right technology partner would be critical to the district's success. As Garrett explains, "Successful creation of experiential learning environments and faculty adoption and use of innovative learning spaces depend critically on collaborative partnerships."

For Downey, that partner was Panasonic. Dr. Garcia had started conversations with Panasonic at Glendale Unified School District, where he had served as Deputy Superintendent before moving to Downey. As a result of those constructive conversations, Dr. Garcia came to Downey excited about how Panasonic could help the district achieve its mission. "At his urging," says Brossmer, "I was able to pick up those conversations with Panasonic and help move us forward."

According to Brossmer, Panasonic understood what it takes to build effective learning spaces designed to drive real learning outcomes. In the past, the district had worked with a number of different technology companies for different tools and equipment — computers, cameras, displays, among other things.

"What I immediately liked about Panasonic," Brossmer says, "was that they were a single provider for all of our needs. It was one-stop. They were able to bring their certified third-party products and software to the table." As Brossmer explains, if there were pieces that we needed that Panasonic didn't manufacture, they sourced our needs for us, simplifying the technology acquisition and maintenance process.

This was a major benefit, Brossmer notes, and a real differentiator. "Panasonic has been and continues to be more than just a vendor," he says. "They have been a partner in helping us reach our objectives and goals."

For example, as a part of the district's efforts to bring learning into the 21st century and prepare students for the

A SNAPSHOT OF DOWNEY UNIFIED SCHOOL DISTRICT

Location: 12 miles southeast of downtown Los Angeles

Student Enrollment: 22,800

Teaching Staff: 892

Schools
- 13 elementary schools
- 4 middle schools
- 2 high schools
- 1 continuation school
- 1 adult school

Poverty Rate: About 70 percent for the district

Ethnic/Racial: 85 percent Hispanic and Latino

English Language Learners (ELL): 17 percent

Individualized Education Program (IEP): 11 percent

working environment, the school wanted to deploy flipped classrooms. Panasonic helped the school develop a lecture capture system by bringing in professional-grade cameras with unique features like image tracking and evaluating and recommending SAFARI Montage software. Now a teacher simply logs into SAFARI Montage, which can turn on the camera in the room, and chooses presets for the camera, including focusing on the whole group instructional device (an interactive projector) or the small group instructional device (an interactive display), or the teacher can manually control the camera from their computer. Using SAFARI Montage, the teacher has additional functionality in splicing, meta-tagging, and sharing video with students to watch later as part of the flipped classroom model.

In the end, as the result of such cooperation, the district leadership team developed a relationship of trust with Panasonic. "We had one point of contact who always helped us find the best solution and best product for what we wanted to accomplish.

"We brainstormed, dreamed what we wanted to see, and conveyed those ideas to Panasonic. Panasonic came through, outfitting Buildings A and D with displays, projectors, classroom audio, broadcast, video surveillance, and mobile computing, all integrated to work together, making it easier for teachers and students to use and collaborate."

TECHNOLOGY-ENABLED CLASSROOMS AT DOWNEY HIGH SCHOOL

Two buildings at one of DUSD's two high schools (Buildings A and D) were initially outfitted with technology-enabled classrooms.

Building A is a combination of administration and 31 classrooms, including classrooms for math, English and social science, in addition to a culinary arts classroom and a digital video photography and TV video production studio that makes it possible for students to shoot, edit, and produce their own videos.

Building D is an automotive/engineering building with five classrooms and 7 automotive bays to provide education and practice in automotive system operation, diagnosis, and repair. In addition, there is one very large classroom on the second floor of the building where Career Technical Education (CTE) courses are offered.

In general, every classroom has the following:
- Chromebooks, iPads, and laptops
- Panasonic 3E 2-in-1 laptop/tablet hybrid device
- Ultra short-throw interactive projector
- 65-inch LED interactive display
- Enhanced audio system with wireless microphone
- Document cameras
- Interactive whiteboards

As Brossmer quickly points out, Panasonic didn't just sell them a bunch of hardware, but instead consulted with the Downey team on the instructional technology design to develop customized classroom solutions. "Based on our overall vision, Panasonic helped us select, place and utilize the technology in pursuit of the school's vision."

PHASE II: DEPLOYMENT AND TRAINING

Of course, none of the technology is of any use if teachers themselves don't embrace and use it. As Brossmer puts it, "None of this stuff works unless teachers are comfortable with it and know what to do with it."

To achieve that goal, Downey initiated a plan that involved a two-day training session in August 2014,

followed by an additional two-day session after teachers had a chance to use the technology in their classrooms in September and October.

The first day of the initial in-service workshop was designed to introduce staff members to the technology. "It was a 'plug and play' day," Brossmer says, "including how to turn on the equipment; what it does; how to use the sound system; how the camera works – that kind of stuff."

The next day focused on how the technology could be used instructionally. "The goal was to help teachers begin to understand how the technology could aid in their instructional goals," Brossmer says.

Team leaders knew, of course, that they would not be able to help teachers learn everything there was to learn in just two days. "We just wanted to whet their appetite, so to speak," Brossmer says. "We wanted to help them feel comfortable with the technology and get them excited about how the technology could help enhance teaching and learning."

The training was held at the district office. A room in the district office had been outfitted with all of the exact same technology that teachers would find in their classrooms, including the mobile furniture.

"Before anything went into the classroom," Brossmer explains, "we tried it out first in our Technology Training Center at our district office. The training center at the district office has been extremely valuable for bringing teachers into train.

"But it has also helped us refine our vision for the classrooms," Brossmer continues. "By experimenting with the technology in our training center first, we were able to work out the bugs and kinks. We went through three or four iterations before ending up with the one that went into the classroom. So having that testing room or training room was really integral."

Then, in late fall, after teachers had a couple of months to use the technology in the classroom, they were invited back for another set of more focused training. Prior to that training, the district had sent out a survey to teachers in Buildings A and D to see what they felt was working, what was not, and what they needed more training in.

"As a result of that survey," Brossmer says, "we were able to tailor the next phase of professional development around the specific needs and requests of the teachers. We

knew that English teachers might need something different from math and science teachers, and so we were prepared to customize and tailor the additional training to meet specific needs."

The second session also focused on lecture capture video, which was something the district encouraged teachers to use.

During all of this training, Brossmer adds, Panasonic offered additional support with their own professional development providers — educators who not only had classroom teaching experience, but who were extremely knowledgeable about the technology. "Panasonic really put a lot of different assets together to help us accomplish our goals," Brossmer says.

PHASE III: EVALUATION AND NEXT STEPS

What is the result to date? "Certain teachers have clearly embraced this technology," says Brossmer, "including some teachers I wouldn't have expected."

For example, the culinary arts teacher in the A building, according to Brossmer, is utilizing everything. "She's utilizing all the displays; she's using her lecture capture; she's using her amplified voice; she's using her video to show her demonstrations of her food preparation. She's doing everything we could have dreamed. And she is so excited and rejuvenated."

But, Brossmer admits, not everyone is totally on board as yet. "We have other teachers who still have their desks in rows and are not utilizing the technology."

The problem, Brossmer believes, is that teachers were not screened about their interest level before placing them in the technology-enabled classrooms. "While we've been very successful," he says, "it would have been better to screen teachers about their interest in participating."

Finally, other teachers really want to use the technology, but are still a bit intimidated. "We encourage all teachers to call on their students if they have a problem or get stuck," Brossmer says. "We also encourage those teachers who have embraced the technology to help and encourage those teachers who are not using it.

"In general, though," Brossmer adds, "teachers, students, and parents alike understand the effort that went into the design of the new classrooms, and appreciate what the district

8 TIPS FOR CREATING ACTIVE LEARNING SPACES: WHAT WE'VE LEARNED AT DUSD

"Throughout the planning and implementation process for our technology-enabled classrooms," says Roger Brossmer, "we learned quite a bit." Here are Brossmer's eight tips for district administrators planning their own classrooms for 21st century teaching and learning:

1. Actively engage teachers in the design process from the beginning. This can be done with surveys to ascertain their most important needs and wishes, and with workshops to not only gain hands-on experience with new technologies, but to offer exchanges of ideas among teachers.

2. Start with what you want students to be able to achieve and what you want teachers to be able to do; then figure out what technology devices can help you achieve those goals.

3. Don't expect teachers to be the experts in technology. Let them learn as they go. Encourage them to call on students for help. Students are often very technology proficient themselves.

4. Remember re-imagined learning spaces involve everything, including furniture.

5. Provide targeted workshops for teachers that focus on how teachers can achieve their desired learning outcomes; give teachers enough time to understand how best to facilitate learning with the technology.

6. Start with teachers who are eager to participate. Recognize that it involves a huge time commitment on the part of the teachers.

7. Encourage faculty members who have already embraced new technologies to demonstrate to others how they use technology to facilitate learning.

8. Make sure you have sufficient support. It is critical to have enough trained personnel to provide the support teachers and students need, including technology teacher leads for the core instructional areas.

is doing to help students achieve those 21st century skills. We've learned a lot in the process and are confident that we are helping all students graduate with a 21st century education.

CONCLUSION

Today, Buildings A and D at Downey High School serve as a showcase for the District's vision for 21st century teaching and learning — a vision the district has for all classrooms in the Downey Unified School System.

At Downey, teachers and students are not "doing" technology for technology sake. "It's about finding the right tools to help accomplish the right outcome," Brossmer says. "Technology gives us flexibility in that goal."

The goal for the future at DUSD is to replicate the technology-enabled concept in every classroom at every school site. "While that may not be immediately possible due to funding," Brossmer says, "we are definitely moving in that direction. Our goal is to get as many 21st century classrooms as possible throughout the district."

The benefits of these technology-enabled classrooms are many. "With these new buildings, we are minimizing the opportunity gap," Brossmer concludes. "Our students are going to have opportunities and exposure to things that very few kids will have in this state, let alone in this country. And because of that, they're going to have an edge when they go out in the workplace."

SOURCES

P.B. Garrett. "The Evolving Classroom: Creating Experiential Learning Spaces," Educause Review Online (October 2014). www.educause.edu/ero/article/evolving-classroom-creating-experiential-learning-spaces

J.D. Walker. "What Makes New Learning Spaces Work? New Research on the Importance of Social Context," Educause. www.educause.edu/events/eli-virtual-annual-meeting-2015/2015/learning-spaces