



TLA BLENDED LEARNING SNAPSHOT

The Learning Accelerator's **Blended Learning Snapshot** series captures real-world examples of success in areas that are critical for implementing blended and personalized learning. This snapshot highlights Lindsay Unified School District's efforts to provide home Internet access to its 4,200 students, and includes useful strategies and artifacts for other districts to share.

LINDSAY UNIFIED'S PATH TO COMMUNITY-WIDE WIFI: CONNECTING EVERY LEARNER

In fall 2014, the US Census Bureau issued a report¹ on a nationwide survey covering computer and Internet use. The data revealed an uncomfortable yet all too familiar story: at-home Internet access is unevenly distributed across America. Over 90% of households earning \$100,000 or more annually have access to the Internet at home. Only 48% of families earning \$25,000 or less do. In addition to inequitable distribution among income levels, similar gaps exist across race and English language abilities.

and complete work outside of the classroom. When they lack at-home connectivity, they can't take advantage of these resources in the same way their more privileged peers can.

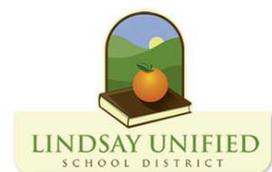
This growing inequity requires schools to boldly address fundamental questions, including: Is it ok for only some of our students to have access to high-speed Internet at home? If not, how can school systems help bridge the digital divide outside of school?

This snapshot provides a look into how one rural community in California, Lindsay Unified School District, answered these questions. (Hint: Their answer to the first question? A resounding "No.")

14.6 MILLION

●
The number of homes earning less than \$25k per year without high-speed Internet.

This digital divide has broad implications for families, as those without adequate Internet lack access to a myriad of online resources and services available - informational, health, economic, and entertainment. In education, Internet access is now more important than ever given dramatic shifts towards blended and personalized learning. As educators seek to use technology to individualize and personalize instruction, students increasingly have the opportunity to explore learning topics, access supports,



[Lindsay Unified School District](#) is located in Lindsay, California, population 13,000. With 4,200 K-12 students, LUSD uses a "performance-based" learning system.

¹ <http://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-28.pdf>

About Lindsay Unified School District

[Lindsay Unified](#) is a 4,200 student K-12 district in California's Central Valley. At first glance, Lindsay, CA is like many farming communities. Agriculture lines the highway, businesses are interspersed among small neighborhoods, and stoplights are rare. Nearly half of the rural district's students are English Language Learners, and over 80% qualify for free and reduced lunch². However, digging under the surface of these more traditional rural aspects, Lindsay is also highly unusual. It is one of the most progressive districts in the nation, having become a national model for personalized, competency-based education.

“The question is, what are we going to do today with our systems and structures to ensure our students’ ability to succeed?”

LUSD Superintendent Tom Rooney

The district's innovation is inspired by the core belief that preparing students for the 21st century requires dramatically rethinking educational practices. Superintendent Tom Rooney puts it this way: “The world in which our learners will live and work does not yet exist. It is unfolding before us. The question is, what are we going to do today with our systems and structures to ensure our students’ ability to succeed?” This belief in the need for system change is made even more urgent by the fact that Lindsay serves a very high-need population. Rooney boiled down the district's drive to meet these needs with a simple question: “Do you really care about English language learners and children of poverty becoming productive citizens of our society?”

PERFORMANCE-BASED LEARNING

For Lindsay, an obvious “yes” is reflected in their actions. In 2007, Lindsay Unified reinvented its approach to schooling, adopting a visionary district-wide [Strategic Plan](#) to move towards a “performance-based” learning system in which every student progresses through learning standards at their own pace. This plan was created through a series of gatherings to: engage community members, embrace their ideas, and develop a shared vision for the future of local education. Nearly ten years later, it still guides daily decisions.

KEY RESOURCE

•
[Lindsay Unified Strategic Plan](#). This document outlines Lindsay Unified's vision for student learning, including: mission, key beliefs, values, and life-long learning standards.

Learners (Lindsay's term for students) work with Learning Facilitators (teachers), who guide them towards resources and provide direct supports as they develop evidence of mastery and move along their own learning pathways. Blended learning is used as a mechanism for this approach, helping Learners develop foundational



knowledge and supporting them through cycles of inquiry that lead to deeper learning. The district heavily utilizes [Empower](#), a performance-based learning platform, to support their blended model.

CONNECTIVITY COUNTS

Given Lindsay's innovative, technology-enabled approach, having access to the Internet isn't a luxury, but a need. Described by Rooney as a “moral imperative,” the work embraces the current reality of college and career readiness by enabling students to complete assignments, hone critical research and technology skills, and virtually explore the world from their own homes, 24/7. Even more, it provides parents, who are central to the district's technology vision, an opportunity to become more involved in the lives of their children while building their own digital prowess.

KEY RESOURCE

•
[Blended and Personalized Practices at Work: Profile of Lindsay High School](#). In this detailed profile, learn more about Lindsay's performance-based model in action, including viewing specific teaching and learning strategies in place as well as accessing key resources and artifacts to take to your own school or district.

To address this imperative, Lindsay complemented their in-school redesign with additional focus on a community-wide, out-of-school issue in the 2014-2015 school year: figuring out how to provide the same learner-friendly version of the Internet available at school to the homes of all its 4,200 learners -free of charge.

²<http://www.ed-data.org/district/Tulare/Lindsay-Unified>

Lindsay Unified's Path to Community-Wide WiFi

The process launched at the beginning of the 2014-2015 school year but the pathway Lindsay Unified took to identifying and implementing a solution was neither simple nor straight. Reflecting on his own experiences, Lindsay Unified's Network Administrator, Peter Sonksen, offers this humble observation: "By no means has any step in this process been easy. It's been tricky getting here."

Collaboration with stakeholders was a main component throughout the process. Aligned with Lindsay Unified's overall vision for stakeholder engagement, critical input was gathered internally from students, educators, and school leaders, as well as externally from parents, neighbors, business owners, and local government. In the end, the solution identified relied on nearly all of these players over the three-year journey.

Once Lindsay Unified had gathered this input, the district started vetting a variety of options. Two options considered but not adopted included:

- **Netbooks On a Cellular Network:** At first, the team concluded that connecting student devices to the region's existing cellular network would allow them to achieve their objective. However, once testing was done, the district found that the local cellular network had a weaker than expected signal, this sent them back to the drawing board.



- **Mobile Broadband:** Next, they consulted the neighboring Kings County Office of Education, about [their work](#) with [WiMAX](#) mobile broadband. This approach would meet basic Internet needs but officials worried it would fail to meet imminent demand for bandwidth as student technology use, particularly of video-rich educational content, at home increased. The team stayed staunchly focused on their future requirements.

After exploring various other potential options, the team finally landed in a series of promising conversations with the area's wireless and utility providers to expand the district's own network to transmit signals and create local hotspots to serve as access points throughout the community. Sonksen explained it in laymen's terms: "We more or less found the solution we're using today which provides wireless connectivity to the district's network from distribution towers to hotspots. It's very similar to traditional satellite dishes you see on people's homes." This "satellite dish" description was a relatable term that eased the challenge of explaining technical aspects of the project to stakeholders.

LOCATION, LOCATION

It was easy to identify where antennae could be installed - school and city buildings located throughout the district could serve that function. City and district leaders negotiated a [Memorandum of Understanding](#) to allow for installation and upkeep on city-owned facilities.

However, leaders faced a perplexing question: Where does the district put the 500 hotspots necessary to provide an appropriate level of coverage? Each hotspot cost \$600 to install, so choosing the correct installation points was critical to get right the first time. An obvious answer in many locales might be light or utility poles, which are ubiquitously located.

However, light poles are a rare sight in Lindsay. Utility poles proved to be an untenable option, as establishing the right agreements with utility companies proved far more time consuming than anticipated.

So district leaders looked towards a different community asset: homes. "We finally decided the only way we were going to be able to accomplish the objective was to install the hotspots on the properties of our residents. We wanted to make sure the community was happy with what we were doing but we were also concerned about protecting residents and ourselves." Sonksen recalled. While this approach met technical requirements, the process was not a simple one.

KEY RESOURCE

- [Memorandum of Understanding between the City of Lindsay and Lindsay Unified School District. Lindsay Unified developed an MOU to guide engagement with the district on](#)

LEGAL CONCERNS

Given the potential legal complexity, leadership requested support from both Tulare County Council and the Lindsay Unified legal team. Together, the group fashioned an approach to allay the legal concerns of installing hotspots on the roofs of residents. It consisted of three key components:

1. **Insured third-party contractors** who assume liability for the installations.
2. **Basic release forms** similar to those used in satellite dish installations.
3. **Supported hotline** that connects dissatisfied customers directly to Sonksen's team, who then work with the contractor to resolve any issues.

Implementation Phases

Lindsay launched the initiative with a “Phase 1” testing period. In January 2015, the district installed a series of WiFi hotspots in an apartment complex next to one of the district’s elementary schools, providing access to 40 Learners. This pilot period confirmed the viability of the solution.

The district next needed to expand the program, testing on a larger scale. For “Phase 2,” launched in the spring of 2015, the district planned to install additional antennae on schools and city buildings and hotspots in staff homes. However, in order to go further, the team had to address two additional issues.

First, an existing policy barrier - [a local ban on the installation of telecommunications equipment](#).

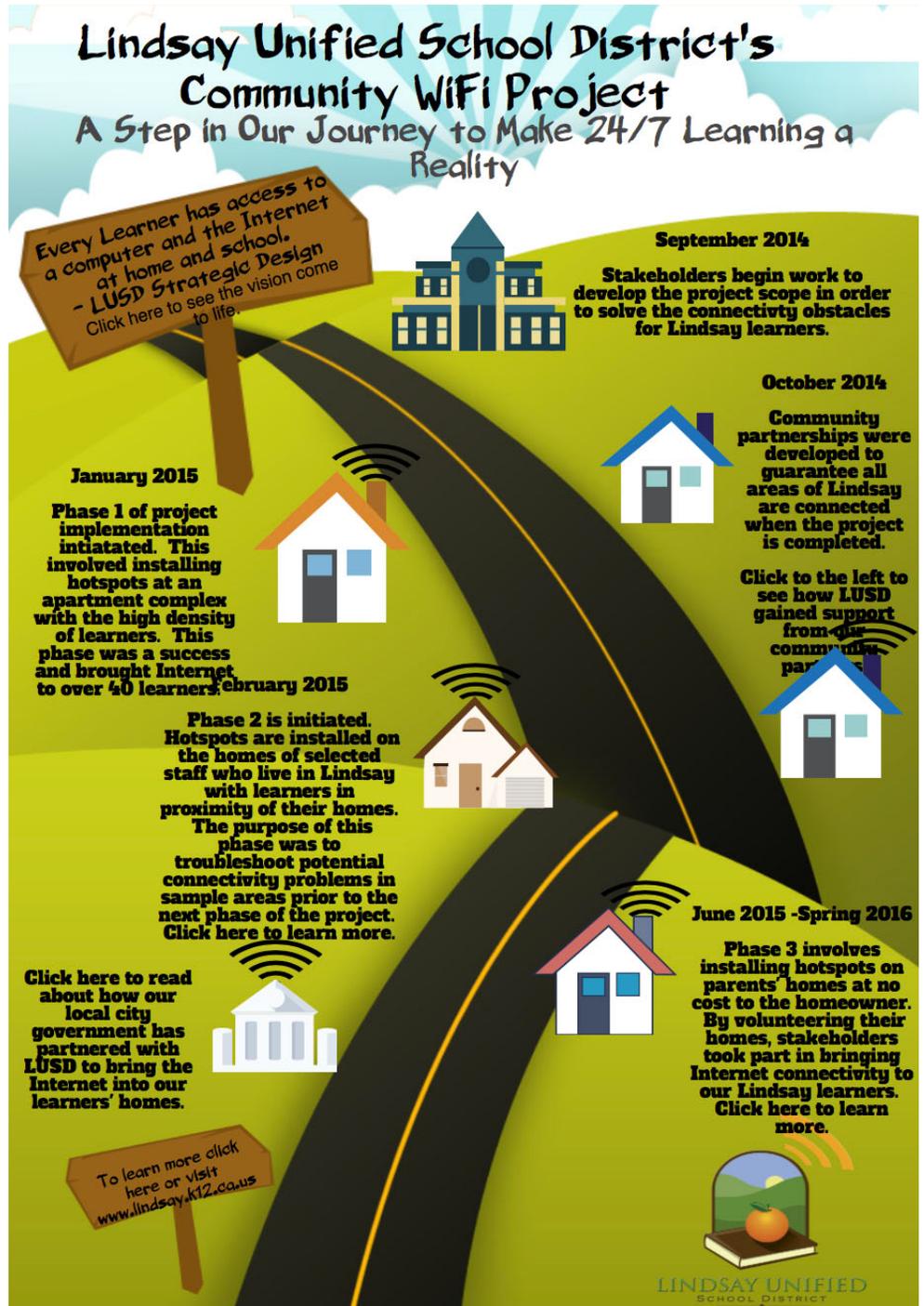
This ordinance was a relic of past technology, when satellite dishes and cell phone towers were large, unsightly, and often disruptive structures. Given technology improvements that made such devices much smaller, this concern was outdated. Lindsay Unified convinced the City Council to pass an amendment to its municipal code to allow residential installations of hotspots and antennas.

Second, district leaders needed to secure willing participants for installation. The district reached out to staff with a [direct request](#), explaining the vision and asking for their “support to make it a reality.” With this direct, informational approach, Lindsay secured enough participation to move forward.

Though Phase 2 was larger and logistically more challenging than the initial pilot, it proved successful.

Given this success, the district team was ready to move to “Phase 3” installing hotspots in residences across the community. However, with no precedent for engaging families and other community members in this way, the extent to which

people would volunteer was unclear. Lindsay sent out another [mass communication](#), clearly explaining the need and request. Fortunately, the community’s response to a mass mailing to gauge interest was overwhelmingly positive. In fact,



many of those who stepped up were thanked for their commitment and informed that their participation wouldn't be necessary. Selected respondents signed a one-year, automatically renewing [agreement](#) to have the hotspot installed and maintained on their property.

KEY RESOURCE

- Sample Community Communications. Lindsay Unified developed communications for both [staff](#) and [residents](#) to solicit participation in the initiative.

KEY RESOURCE

- [License, Right of Access and Release Agreement](#). Lindsay residents agreeing to hotspot installation signed this agreement with the district.

PROJECT COST

The full project has an estimated startup cost of \$1.25 million to install antennae and hotspots. These costs were funded primarily through a three-year state school improvement grant (called the Local Control Accountability Program, or LCAP). The anticipated ongoing maintenance cost is \$75,000 per year (\$17 per Lindsay student). Given these costs, the investment has been substantial. However, making sure every Learner is connected is a core part of the bigger strategic vision for learning. According to the greater Lindsay Unified community, the investment has been and will be entirely worthwhile.

Progress Made and Looking Ahead

Approximately 75% of Lindsay's 4,200 students can now access filtered Internet from their homes free of charge.

Lindsay officials expect to connect the remaining 25% of students, those in remote locations, by the end of 2016. These students will receive the same access through [LTE-supported devices](#) connected to the district's own network, enabled by two

cellular towers (LTE is a '4G' mobile telecommunications standard).

In the coming years, the hope is that progress in closing the digital divide at school and home for all students across the nation will make Lindsay Unified's initial innovative work a vague memory. For now though, the Lindsay community will continue to inspire others as they work passionately for one common purpose - to connect their children and families to the world, leading to learning opportunities far beyond their small rural community.



KEY RESOURCE

- Lindsay created this [Request for Proposal](#) to vet potential LTE providers.

Key Lessons Learned by the Lindsay Unified Team

The leadership team learned a great deal about overcoming the challenges inherent to technical initiatives. Listed below are four of their key takeaways:

1 Determine the Dimensions of the Opportunity Before Starting the Work

There is no one-size-fits-all solution to providing high-speed filtered Internet to your students. However, getting a clear idea of need is essential before embarking on the work. Below are a standard set of questions to answer to determine the breadth and depth of the opportunity.

- How many students in each grade lack high-speed Internet access and why?
- To what extent are homework assignment decisions influenced by lack of access?
- In what ways and to what extent do students cope with lack of access?
- What are the main downsides of students lacking at-home access today? Next year?

2 Prioritize Clarity, Transparency, and Communication Throughout

Developing “SMART” (specific, measurable, attainable, realistic/reasonable, and timely) objectives, sharing them publicly, and referring to them regularly establishes clear and common understanding. Lindsay Unified’s Director of Technology and 21st Century Learning, Joe Vagt, emphasized the importance of being diligent with communication: “Be iterative. Constantly going back to check and adjust to ensure understanding.”

Lindsay Unified created a [website](#) to explain the program to families and other stakeholders. This website included an overview of the work, a coverage map, and a short video to explain the need for at-home connectivity, connecting the program clearly with the district’s vision for learning.

Further, it’s important to remember that the informational needs of individuals aren’t homogenous - make sure that communication strategies aren’t one-size-fits-all by defining key stakeholder groups, messages, and plans for execution.

KEY RESOURCE

- [TLA has created a 10-step Communications Planning Guide](#) to help districts create a communications strategy for implementing blended learning.

3 Design for Long-Term Sustainability

Lindsay’s Chief Business Official, Grant Schimelpfening, is a veteran of the ebbs and flows of public school funding in California. He believes that “a big part of sustainability is understanding not only what is needed right now but what will be needed in the future. There needs to be dedication to planning in a way that guards against economic downturn.” Initiatives need to be forward-looking and stakeholders must have honest data-based conversations about costs, feasibility, risks, and accountability.

4 Embrace Mistakes and Focus on the Mission

Innovation requires the courage to take risks, the culture to embrace inherent setbacks, and the humility to discuss lessons learned openly. According to Superintendent Tom Rooney, “The way to get through them is to be mission driven. What is your mission? Whether you are a school board member, a community member, a school leader, or a learner facilitator, there needs to be a willingness to overcome, regardless of circumstance. There needs to be a mindset of courage and perseverance that says we will not give up until we get there. We will work through everything that comes along in order to do what’s right for our learners. And, if the system has a mission to produce graduates that are ready for the world, then Internet connectivity is a must.”

Lindsay’s mission is clearly articulated in the [Lindsay Unified Strategic Design](#), the foundation of which is a set of core values that include risk-taking, courage, and openness. The leadership team regularly reviews and discusses the Strategic Design to stay focused and re-correct when mistakes are made.

Additional Resources

Lindsay Unified's approach to ensuring at-home connectivity is just one of several being tried across the U.S. A few others to learn about include:

COACHELLA VALLEY UNIFIED'S "WIFI ON WHEELS" PROGRAM

Coachella Valley Unified School District needed to find a way to provide at-home connectivity across its 1,250 square mile enrollment zone. The leadership team decided to use an existing asset -school buses- to bring wifi out to the community. The district outfitted buses as mobile hotspots, parking them in [key areas overnight](#).

EVERYONEON'S CONNECTHOME INITIATIVE

EveryoneOn is a national nonprofit working to eliminate the digital divide by making affordable Internet, low-cost computers, and free digital literacy courses available to all unconnected U.S. residents. The organization has partnered with the U.S. Department of Housing and Urban Development (HUD) to connect families living in HUD-assisted housing with access to high-speed Internet. Pilots are currently underway in 28 communities nationally.

FEDERAL COMMUNICATIONS COMMISSION'S (FCC) LIFELINE PROGRAM

The FCC established Lifeline to make communications services more affordable for low-income consumers. Eligible families can purchase discounted broadband packages from providers.

THE CONSORTIUM FOR SCHOOL NETWORKING (COSN) DIGITAL EQUITY ACTION TOOLKIT

COSN has developed a downloadable "toolkit" whitepaper that discusses the challenges and details four steps school districts can take to address at-home connectivity and the 'homework gap.'

Looking for resources to understand in-school connectivity? Check out EducationSuperHighways' [NETWORK ESSENTIALS FOR SUPERINTENDENTS](#) and [SCHOOL WIFI BUYERS GUIDE](#).



TLA BLENDED LEARNING
SNAPSHOT

The TLA Blended Learning Snapshot, [EdTech Purchasing in Houston](#), is a recommendation-filled report on Houston's computer hardware purchasing program.

It includes links to sample RFPs, lease vs. buy guidelines, and more.

For More Information:



September 2016



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