



“We are completely committed to our 1:1 program. It’s not an option. We’re committed to supporting teachers, students and the technology itself, and we depend on HP to deliver technology that will help us succeed.”

—Karen D. Fuller, chief technology officer, Klein Independent School District Klein, Texas

**HP customer case study:** One of the largest school districts in Texas chooses HP Tablet PCs to launch its 1:1 technology program

**Industry:** K-12 education

**Windows®. Life without Walls™. HP recommends Windows 7.**

**Objective:**

Provide mobile PCs for 1:1 program in a K-12 environment

**Approach:**

Klein ISD in Texas has chosen HP Tablet PCs to equip thousands of students in its middle and high schools.

**IT improvements:**

- Full-function computing for both standard desktop software and tablet-enabled programs
- Standardization facilitates in-house support, repair

**Business benefits:**

- Flexibility to use both stylus and keyboard input
- Research and homework capabilities outside of school
- Improving test scores, rising student engagement



When the Klein Independent School District in Texas embarked on a 1:1 technology program, it did so thoughtfully, methodically, and with a firm commitment from the top.

“To have the level of technology we have is pretty unusual, and I attribute it to the vision of the district’s leadership, and support of our community,” says Karen D. Fuller, chief technology officer for Klein ISD. “Looking ahead, we are completely committed to our 1:1 program. It’s not an option. We’re committed to supporting teachers, students and the technology itself, and we depend on HP to deliver technology that will help us succeed.”

A long-time HP customer, Klein ISD has standardized its 1:1 program on HP Tablet PCs, most recently the HP EliteBook 2730p Notebook PC with tablet capabilities. “We can use HP Tablet PCs in all curricular areas—making use of the stylus to do math problems by hand,

“We can use HP Tablet PCs in all curricular areas—making use of the stylus to do math problems by hand, for example, or manipulate science experiments more efficiently. It makes them an excellent choice for education.”

Karen D. Fuller, chief technology officer,  
Klein Independent School District

for example, or manipulate science experiments more efficiently. It makes them an excellent choice for education,” Fuller says.

#### **1:1 education on a massive scale**

Klein ISD’s commitment to a 1:1 program—eventually putting a computer in every student’s hands—is no small matter. Klein is a massive school district. It serves some 44,600 students in 38 schools. “Many of our school campuses are larger than the town I grew up in,” Fuller notes.

---

*“We’re fortunate to have people at HP who are committed to helping us succeed with our 1:1 program. That kind of support can make all the difference.”*

Karen D. Fuller, chief technology officer,  
Klein Independent School District

---

**Windows®. Life without Walls™. HP recommends Windows 7.**

Moreover, Klein doesn’t simply throw a bunch of tablets into a classroom and hope for the best. Its 1:1 technology deployments have been planned and methodical, first targeting a high school dropout prevention and credit recovery program, a middle school, and in the last few years, high schools. A well-planned sequence of events includes implementation of a wireless network, professional development for teachers, and establishment of support resources on each campus.

In most cases, Klein equips its teachers with tablet PCs a year in advance of students, and during that year, provides teachers with plenty of training and professional development activities.

“At Klein Oak High School, we placed two instructional technology specialists on the campus to work directly with teachers to help them plan how to integrate

technology into their teaching,” Fuller says. “So in the classroom you won’t hear a teacher say, ‘Now we’re going to pull out our tablets....’ Instead, it’s more like, ‘Now we’re going to talk about the Fall of Rome,’ and the students just naturally begin doing their research and accessing resources using their HP Tablet PCs,” Fuller explains.

#### **Fully configured for learning**

The latest computers distributed to students are HP EliteBook 2730p Notebook PCs with an Intel® Core™2 Duo LV Processor, 2 GB of memory, a 120 GB hard drive, and wireless A-B-G-N capability.<sup>1</sup> Software includes Windows® XP Professional (available through downgrade rights from Genuine Windows Vista® Business),<sup>2,3</sup> DyKnow Vision, Microsoft® OneNote, Microsoft Office 2003, Inspiration, and Persistent. All are equipped with CompuTrace, which helps the district track and locate lost or stolen PCs.<sup>4</sup>

“I wouldn’t do a 1:1 program without CompuTrace,” says Fuller. “If a device is misplaced or we think it’s stolen, we report it immediately. We also use CompuTrace to monitor how full the hard drives are getting. If one is getting full, we realize that there’s something on there that shouldn’t be on there.”

School campuses all have wireless networks (with some 2000 wireless access points throughout the district, and an average of 200 per high school) so that teachers and students alike can access educational resources. The district has adopted ANGEL Learning as the standard learning management system to help teachers manage the classroom and educational activities. Teachers use DyKnow Monitor software to keep an eye on student interaction and activity, determine who needs extra assistance, and encourage small group collaboration.

For students, Tablet PCs provide new ways to apply technology to learning. Microsoft OneNote software lets students take handwritten notes and annotate existing documents using the Tablet PCs stylus. One of the district’s music teachers distributes audio recordings wirelessly to students using the ANGEL Learning system. The students record themselves singing the piece and then turn in their recordings to the teacher.

“We used to have worksheets,” recalls Fuller. “Now students can be more interactive, which makes them more engaged with the educational resources and the subject matter. That’s where 1:1 technology exposure makes the biggest difference: students are simply more engaged.”



That applies not just in school, but after hours as well. Fuller notes that students use their HP Tablet PCs wherever they go. Those who don't have Internet access at home can often find it at a nearby restaurant or public library, or at a friend's house. They can turn in their homework as soon as it's completed, from anywhere with wireless Internet access.

---

*"In the classroom you won't hear a teacher say, 'Now we're going to pull out our Tablets....' Instead, it's more like, 'Now we're going to talk about the Fall of Rome,' and the students just naturally begin doing their research and accessing resources using their HP Tablet PCs."*

Karen D. Fuller, chief technology officer,  
Klein Independent School District

---

**Windows®. Life without Walls™. HP recommends Windows 7.**

Fuller recalls one veteran teacher telling her that, after 30 years of teaching, she just experienced a personal first: every student in her class turned in the homework on time.

#### **Support critical to success**

Paying for all the district's technology is no small matter, and that's where community support is critical. Because Klein lacks a major industrial base, it doesn't have the budget to support the 1:1 program out of annual tax revenue. Instead, it has gone to the community twice with bond issues, with one of the objectives, to support its technology initiatives: a \$72 million bond issue in 2004 and a \$32 million bond issue in 2008. Roughly 85% of those amounts were dedicated to classroom technology.

"Clearly our community believes in the value of technology as an integral part of public education," says Fuller.

Making technology critical to the educational process creates another burden for the district: delivering timely support. "Technical support can make or break a technology program in the schools," says Fuller. So every Klein school campus in the 1:1 program gets a repair center, usually staffed by two or three full-time technicians. Any student or teacher can take their Tablet PC to the repair center. Loaner PCs are available for cases that take longer than 24 hours to repair.

Technicians are also responsible for maintaining other technology in the schools: desktop PCs in the library, and other classroom devices such as interactive whiteboards, document cameras, and voice-over-IP telephones in every classroom.

## Customer solution at a glance

#### **Primary applications**

K-12 education

#### **Primary hardware**

- HP EliteBook 2730p Notebook PC

#### **HP software**

- Microsoft® OneNote
- Microsoft Office 2003
- Windows® XP Professional (available through downgrade rights from Genuine Windows Vista® Business)<sup>2,3</sup>
- DyKnow Vision
- Inspiration
- Persistent
- CompuTrace

Klein ISD is a certified HP self-maintainer, so the district is paid for all warranty repairs performed by its own staff. Klein can also turn to its local HP partner, NWN in Houston, for additional technical support as needed. Klein turns to NWN to purchase its HP products, but it also works directly with HP.

"We have a great relationship with HP that gives us insight into their product roadmap. Our HP representative has been instrumental in connecting us with the right people when we have a technology need," Fuller says. And, it's a two-way street. The district has shared its customer insights with HP through an educational technology council.

### Looking ahead

The results cannot be measured in one or two years, nor can any increase in student achievement be targeted to one initiative alone. However, Klein ISD can document that in the short period of time that it has had the 1:1 initiative:

- Students at the Vistas High School Program continue to graduate in strong numbers, when prior to Vistas they most likely would have dropped out.
- Krimmel Intermediate School received a rating of "Recognized" in the Texas Academic Excellence Indicator System (AEIS) for the 2008-09 school year.
- Klein Oak High School moved from an AEIS rating of "Acceptable" in 2007-08 to "Recognized" in 2008-09, the first year the students at Klein Oak High School had their Tablet PCs.

"That's because technology initiatives engage the students," Fuller says. "Students are involved in learning, and it forces them to employ higher-level thinking skills. We're demanding more of our students today, and it shows in the results on standardized tests."

If she were advising a peer on launching a 1:1 program from scratch, Fuller would start by emphasizing professional development. "Make sure teachers are clear that technology is an integral part of their teaching now, not an extra activity. You need to give intense staff development assistance, and the time to internalize the changes that this will mean in their approach to teaching."

---

*"We have a great relationship with HP that gives us insight into their product roadmap. Our HP representative has been instrumental in connecting us with the right people when we have a technology need."*

Karen D. Fuller, chief technology officer,  
Klein Independent School District

---

Klein ISD's technology plan specifies that the goal of educational technology is enhanced teaching and learning. Learning about technology itself is viewed only as an enabling activity. "Your curriculum needs to drive your technology, not the other way around."

She also advises that schools test every aspect of how technology will work in the educational environment. Sometimes that can unearth issues that require insights and experience from people outside the school system. "We're fortunate to have people at HP who are committed to helping us succeed with our 1:1 program," she notes. "That kind of support can make all the difference."

Contact the  
HP Reference2Win  
Program, 866-REF-3734  
for more information.

To learn more, visit [www.hp.com](http://www.hp.com)

© 2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Microsoft, Windows, and Windows Vista are trademarks of the Microsoft group of companies.

Intel and Core are trademarks of Intel Corporation in the U.S. and other countries.

<sup>1</sup> Wireless access point and Internet access required. Availability of public wireless access points limited.

<sup>2</sup> Systems may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See <http://www.microsoft.com/windows/windows-7/> for details.

<sup>3</sup> Windows® XP Professional is preinstalled on this system and includes end user rights and media for Windows Vista Business. You may only use one version at a time. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

<sup>4</sup> The Computrace agent is shipped turned off, and must be activated by customers when they purchase a subscription. Subscriptions can be purchased for terms ranging from one to four years. Service is limited, check with Absolute for availability outside the U.S.

4AA0-2515ENW, February 2010

