Using Computer Technology To Bridge School and Community

When a new technology coordinator came to a Chicago elementary school in a low-income Latino community, he made a surprising decision. Instead of teaching the children computer skills, he'd teach their parents. As Ms. Chen and Mr. Dym report, no one could have predicted the far-reaching impact the program would have — not just on the parents but on the students, the school, and the wider community.

BY JIE-QI CHEN AND WARREN DYM

EVERY YEAR at Trujillo Bilingual Elementary School in Chicago,[1] parent volunteers are recognized for their work. But the ceremony last year included something different: certificates were handed out to 32 parents who had completed an 18-hour computer course. In a congratulatory speech, principal Maria Rodriguez called computer technology the "universal language of the future" and said it was as important for adults and chil-

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dren to learn as English. Jose Sanchez, the technology coordinator at Trujillo, handed out the certificates to parents. Then he himself was awarded a trophy for his efforts to turn technology into a bridge between the school and the community.

Trujillo School serves children from prekindergarten through eighth grade. Eighty-five percent of the children are Latino, and the rest are African American. Almost all the children (92%) are from low-income families and receive free or reduced-price lunches, and 45% have limited proficiency in English. Before Jose Sanchez arrived at the school, Trujillo was like other schools in low-income Latino communities. It had fewer computers than other schools, particularly at the elementary level, and the students had little access to computers at home.[2]

Sanchez came to Trujillo after 10 years as a social worker at a local mental health center. One of the first things he did as technology coordinator was to conduct a survey of teachers and parents. The results for the two groups were quite different. At the time, Trujillo was on academic probation for low test scores, so the teachers felt that their top priority was to raise students' scores. They didn't believe that they could turn their attention to computer technology until the school was off probation. Parents, on the other hand, expressed a strong interest in learning about computers. If they knew how to use a computer, they said, they could help their children with homework, learn English, and even get better jobs. After consulting with Trujillo's principal, Sanchez decided he would focus initially on developing technology programs that would benefit the school's families. With his background in social work and his knowledge of the community, he was well equipped and eager to take on the challenge, and plans for a computer course for parents and a neighborhood computer club quickly took shape.

A COMPUTER COURSE FOR PARENTS

Sanchez designed the course to address two critical needs among parents in the community: to learn English and to develop word-processing skills, both of which are important for getting good jobs. He recounted the story of one parent who worked at a plastics factory. She was being considered for a promotion from the assembly line to an office job, in which she would enter production data into a computer and make labels for boxes. The job would have offered higher wages, better working conditions, and opportunities for advancement. Unfortunately, it was given to someone with computer experience and better English skills.

Another parent had a similar story. She was asked to undertake computerized inventory work at the bakery where she was employed, but the offer was quickly rescinded when it became clear she did not know how to use a computer.

Sanchez believed it was important to include lessons in English in the computer course — not just to enhance the parents' employability, but also to help them decipher software programs designed for English speakers. As he put it, "Technology is written in English," so computer proficiency is not possible without English proficiency.

Sanchez chose the Rosetta Stone program for English-language instruction. Several parents reported that they learned English faster on the computer than in ESL (English as a second language) courses. One mother commented, "With ESL class, the instructor would deliver the lesson and then go to the next one in order to build up vocabulary. You can't repeat, even if you don't get it. With the computer software, I can repeat the modules and activities as much as I want, until I feel comfortable moving forward."

The course was conducted in both Spanish and English. This strategy was a real draw for parents. One mother had sat through six months of computer training at a technical school before she quit in frustration because the instruction was in English, much of which she couldn't understand.

Sanchez was also sensitive to the apprehension most adults feel when they first encounter computers. In the Latin American community, the computer can be a powerful symbol of a foreign, English-speaking culture. One of the first things Sanchez does in computer courses — for adults or children — is to open up a computer and show the participants its insides. He believes that this helps them overcome some of their fear by showing them that the mysterious and scary machines are really just an assemblage of manufactured parts.

The most unusual feature of the computer course was devised by Sanchez in collaboration with Trujillo's parent council. The course, which was scheduled for three hours a week for six weeks, was free. For each hour of instruction, however, parents were expected to volunteer an hour at school, using their newly acquired computer knowledge and skills to assist Sanchez and the teachers. This arrangement created a mutually beneficial relationship between the parents and the school.

A NEIGHBORHOOD COMPUTER CLUB

While offering the computer course for Trujillo parents, Sanchez also spearheaded the opening of a computer club at his former workplace, the local mental health center.

The computer club was intended as a place for children to go after school to gain experience with various software programs and the Internet, to get help with homework, and to engage in educational and leadership activities.

The club started with 10 computers, and Sanchez sought financial support from a range of sources, including local businesses. He went from store to store in the neighborhood, chatting with owners about the importance of establishing a computer club for disadvantaged children and helping the owners recognize that such a program would mean less loitering outside their shops after school. This fund-raising strategy helped make the computer club a true joint effort between Trujillo and other community institutions.

The club's director and adult volunteers worked with children in groups and one-on-one, often well into the evening. Each child maintained a personal folder on one of the computers, which was filled with essays, artwork, and other projects. The children's computer projects were also displayed on the walls of the club, and the director helped compile them into individual journals that the children could take home to their families. There were essays on plays the children had seen, on visits to the zoo, and on Earth Day, and there were pictures of monsters, boats, and Mayan deities. In addition to the creative computer activities, the children worked on math, reading, and other subjects on the computer.

Because the club stayed open until 8 p.m., many parents were frequent visitors, and some even used the computers themselves when they weren't being used by children. The director of the club noted that parents showed more interest in the computer when they were with their children than when they came alone.

Sanchez also organized a group called Computer Care, made up of sixth- and seventh-graders who were regular members of the computer club. As junior assistants to the technology coordinator — quickly the most prized positions in the school — the students helped install software on classroom computers and in the computer lab, took full responsibility for cleaning all the school's computers on a monthly basis, and assisted in building the school's computer network.

A NEW VISION

By creating a computer course for parents and a neighborhood computer club, Sanchez helped meet important community needs, but he also strengthened the ties between the school and the community. The computer course brought parents into the school, both as learners taking the course and as volunteers "paying" for the course. Moreover, the computer club created a means for collaboration that involved the school, the mental health center, local businesses, and other community institutions. The club also provided a new way for parents to get involved in their children's education, either by volunteering or simply by showing up with their children.

But the relationship between the school and the community was strengthened in less obvious ways as well. In particular, as parents learned more about computer technology, they were stimulated to get more involved in school governance and to voice their opinions and concerns. Many parents began to lobby the local school council — the administrative entity responsible for annual budget decisions — to allocate money for strengthening the technology infrastructure at Trujillo. And parents who sat on the council began to call Sanchez directly to ask questions and discuss issues as he prepared the school's annual technology plan. "They tell me what they want," Sanchez says, glad for the heightened interest and support.

Parents also began to ask the rest of the teachers computer-related questions. "My kid tells me you have a computer in the room but you don't use it much. Why is that?" some parents would ask. "Have you thought about using a software program for your rain forest project?" another might suggest. And still others sought aid from teachers. "Last night, my son and I tried to do an Internet search but failed," one parent told a teacher. "Do you know what the problem might be?"

When Sanchez had conducted his survey, the teachers had said they couldn't deal with computer technology while trying to get off probation, but the parents' questions and concerns encouraged them to find the time. Many ended up seeking assistance from Sanchez, who was always delighted to help. So while Sanchez had set out to bring computer technology to the community, he was surprised to find that the community was bringing that technology right back into the school, as parents advocated for improvements in the computer infrastructure and for greater integration of technology in the classroom. In the end, Sanchez did help computers become a more useful educational tool in Trujillo's classrooms, but he did so only by broadening the vision of what a technology coordinator can do and by turning computers into a powerful social tool to bridge school and community.

1. The names of individuals and of the school have been changed.

2. See Henry J. Becker, "Who's Wired and Who's Not: Children's Access to and Use of Computer Technology," *The Future of Children*, vol. 10, no. 2, 2000; and "The Clinton-Gore Administration: A National Call to Action to Close the Digital Divide," White House, Office of the Press Secretary, 4 April 2000. **K**

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