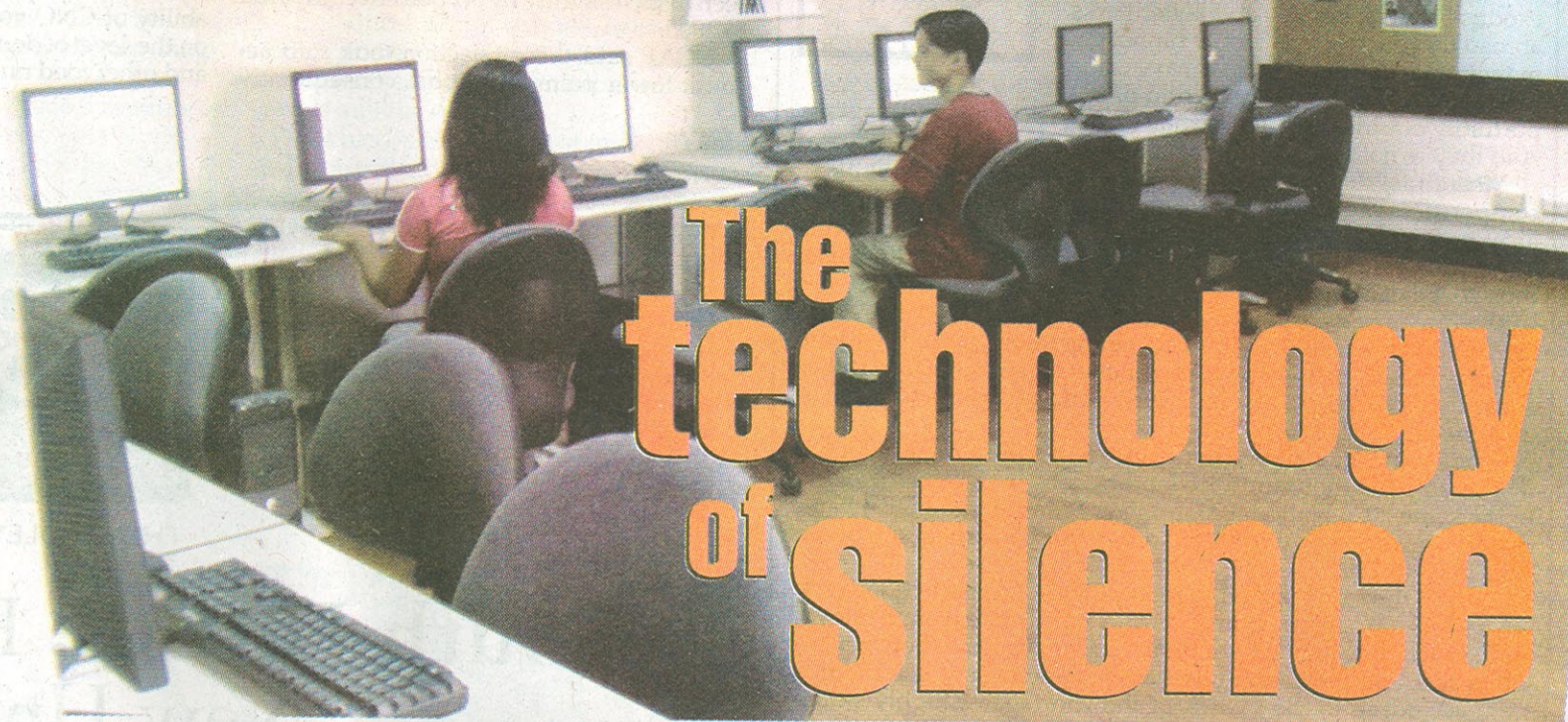


The newly inaugurated PEN Learning Center of DLSU-CSB employs the latest in multimedia technologies as tools to address the remedial and development needs of deaf and hard-of-hearing students in the areas of reading and writing, math, general education, and literacy.



By EDEN ENANO-ESTOPACE

The room is smaller than a typical classroom but it is airconditioned. There is a television set and a VCR and the usual wooden armchairs. The walls are bare, the room silent.

On this particular class day, an Infocus projector is on; the teacher is giving a Powerpoint presentation and all eyes are riveted on the wide screen. The class reads in silence as the teacher supplements the visuals with deft hand strokes.

When the teacher asks a question, 15 pairs of hands shoot up in varied motions and strokes, indicating a flurry of opinions. After a while, all hands are quietly put down as each student is given a turn to "speak." Some are obviously more eloquent than the others, while some need to be cajoled to express an opinion. One or two take a long time answering the question; the others are brief but to the point. Some get it right; the others flounder in their answers.

It is a typical college class, no less.

Outside the room, the corridor is already filled with students spilling out of the other classrooms. The hall is silent but the hands are busy "talking." It is almost lunchtime.

This is the deaf wing of the De La Salle University-College of St. Benilde (DLSU-CSB), one of only six institutions all over the country that offer post-secondary education to the hearing-impaired.

Educating persons with disabilities (PWDs) is never an easy task, especially in a nation with an educational system perpetually saddled with financial constraints.

While the Philippine Magna Carta for the Rights of the Disabled People, which was passed into law in 1992, provides that no persons with disabilities shall be denied access to education, lack of funding often gets in the way.

But notwithstanding budgetary considerations, the main challenge in educating PWDs is in the area of pedagogy.

How does one teach computer graphics, programming concepts, higher mathematics, and advanced English skills, for example, to the hearing-impaired when few teachers are

trained in Filipino Sign Language (FSL)?

While there are many college instructors willing to teach a deaf class, few are knowledgeable about sign language or have the necessary training in handling students with disabilities.

At the Rochester Institute of Technology (RIT) in the United States, deaf students are fully mainstreamed with their hearing peers, taking up courses and attending regular classes in eight different colleges.

Dr. James DeCaro, a professor at RIT and director of its National Technical Institute for the Deaf (NTID), says they have an average of 1,200 deaf students in a total campus population of 15,000.

"These students are given interpreters and note-takers in class and tutors by the NTID," he says. Most professors and students are also well versed in American Sign Language (ASL).

DeCaro is a graduate of Civil Engineering Technology and teaches engineering subjects to college students.

RIT's program for the deaf has been in existence for almost 40 years. DLSU-CSB's School of Deaf Education and Applied Studies (SDEAS) has been around for only 15 years and is still in its early stages of development.

Students at SDEAS attend classes in self-contained classrooms and have their own facilities.

Theresa Christine Benitez-de la Torre, dean of SDEAS, says the goal of the school is to replicate what the NTID has achieved in RIT in integrating non-hearing students into regular classes, where they can enroll in all courses, including the one being offered at the main campus of De La Salle University right across the College of Saint Benilde on Taft Avenue.

"But that is a long, long way to go," she says.

In the meantime, SDEAS is pursuing a ladderized approach to educating the hearing-impaired — slow, silent steps in improving their lives on and off campus.

Technology for the deaf

At present, SDEAS is offering only one baccalaureate program leading to two major fields of specialization — multimedia arts

and entrepreneurship.

De la Torre says that when they developed the curriculum for this program, they took into consideration the strengths of the school and the prospect for employment of the students after graduation.

In 2001, when the new curriculum was developed, DLSU-CSB was already offering a degree in multimedia arts where students were trained in computer graphics and design and also had a strong degree program for aspiring entrepreneurs.

"Our first teachers were faculty members of the School of Design and Arts," De la Torre recalls. "What we did was assign sign language interpreters for (them) while at the same time providing training to those who wanted to learn FSL."

Today, SDEAS' major subjects are taught in a state-of-the-art multimedia room equipped with 20 PCs (one for each student) connected to high-speed Internet and the teacher's master workstation.

While the teacher is explaining concepts and theories, the students can gaze up the wide-screen projector or look at their own individual screens. When they want to "recite" in class, they can project their own screens so that everybody can see and critique their work.

According to Nimfa Viernes, head of SDEAS' Office of the Academic Program and internship coordinator for multimedia arts, the students' workstations can also be controlled by the teacher from the master workstation and each of the workstations can communicate with one another for small group sharing or discussion.

"This allows the teacher to monitor individual activities on each computer," she says. And when a student wants to get the teacher's attention, he or she merely presses a button to alert the teacher that he or she needs some guidance.

At the center of the room, near the wide-screen projector, is a space where a spotlight is focused. "This is where the interpreter stands when the class is being taught by a non-signing faculty," Viernes says.

And when it's time for face-to-face group

Turn to B-7

Interdependency in e-Marketplaces

Linkages with e-Marketplaces have also allowed decision-

The technology

From B-6

discussions, there is a huge conference table where teacher and students can sit down and "talk."

After each class day, the students can go back to the multimedia room to do their assignments or research on the Internet.

While electronic classrooms like SDEAS' multimedia facility are already in use in big universities, Viernes says its advantages for the hearing-impaired are doubled because their education relies solely on visual instruction.

With these technology tools on hand, Viernes says their faculty members are encouraged to develop instructional aids suited to the needs of the students.

It is interesting to note, she says, that some of the theses of their graduates were instructional materials for the hearing-impaired such as "Deaf Math" and "Learning Video (for sign language) for Deaf Kids."

"We hope that in the future, more of our students and teachers will be able to come up with multimedia projects that will eventually help deaf instruction," she says.

Perhaps, the hearing-impaired are in the best position to take advantage of the sweeping technological revolution happening all over the world because computer ability, especially in the area of programming and design, does not necessarily require auditory skills.

Linkages, partnerships

De la Torre explains that the multimedia facility at SDEAS is funded by PEN-International, an organization headquartered at the RIT campus in New York committed to help improve deaf education all over the world.

In the last four years that DLSU-CSB has been chosen as an institutional partner, some \$250,000 has been funneled to SDEAS for the acquisition of state-of-the-art facilities in aid of classroom instruction and teacher training both in the Philippines and the United States.

PEN-International itself is funded by the Nippon Foundation of Japan which provides it with \$1.1 million every year. It is a cooperative multinational network with Russia, China, the

students and this is the huge challenge for the faculty," says DeCaro.

Actually the bulk of the PEN-International funding for DLSU-CSB is being spent for teacher training, human resource development, and instructional materials.

"All members of the SDEAS faculty have received some form of training at NTID and it is a continuing process," DeCaro says. Those who cannot go to the US receive training through live conferencing, e-mails and other forms of new media communications.

DeCaro also explains that in choosing a partner such as DLSU-CSB, they do not dictate what needs to be done or be improved in the school curriculum.

"We allow the institutions to determine their local needs and that is where we come in," he says.

In the case of SDEAS, DeCaro says its administration has identified three areas where it needs assistance: improving institutional skills in teaching and pedagogy, enhancing student learning, and liaising with employers to find jobs for their graduates.

"Jobs are important for our graduates," says De la Torre. "At present, there are few employers in the Philippines who would hire a deaf worker. But with our initial experiences with companies receptive to the idea of accommodating non-hearing personnel in their workforce is that employers do not really care if you hear or not for as long as you can do the job well and contribute to the bottom line."



The PEN Learning Center also serves as a resource center for deaf students and their teachers, ensuring that technologies and reading materials are easily accessible for one-on-one or small group consultations and tutoring.

offers two fields of specialization — multimedia arts and entrepreneurship. I decided to take entrepreneurship," says Eric Villegas, a deaf crewmember at Deck Coffee. "At CSB, I learned to participate in extra-curricular activities and contribute my skills to the deaf community. At first, a hearing person helped me learn how to prepare the menu."

Jennifer and Eric are only two of the graduates of SDEAS who are now on their way to becoming productive members of society despite their disability. Much needs to be done though and DLSU-CSB has barely scratched the surface, says De la Torre.

The Philippine educational system, we are often told, is saddled by huge budgetary problems and resources are not even enough for students without disabilities. While public school students often have to make do with a few books, teachers and facilities that the state school system can provide, people with disabilities from disadvantaged backgrounds have almost nothing at all.

In a paper, De la Torre says the universal estimate for children with disabilities is about 13 to 20 percent of the total population, or in the case of the Philippines, about 10.9 million to 16.8 million.

But for academic year 2004-2005, only 15,298 Filipino children with disabilities went to school. Of this number, only 3,028 were enrolled in regular schools, and the rest attended classes in self-contained classrooms. Of those in self-contained classrooms, 11,597 are deaf and hard-of-hearing students.

According to De la Torre, there are no existing data that would show how many Filipino youths with disabilities are currently attending college.

"The absence of data on PWDs enrolled in any form of post-secondary education raises questions as to why there is no such record available," she wrote in her paper. "This provides information that PWDs' presence in college is not yet significant to gain attention. This can be further interpreted to mean that post-secondary education is not yet fully accessible to them."

Where do the hearing-impaired go after high school? Most of them just stay at home and become dependents of their family members for life. Others help in household chores, while some find menial jobs in the community, De la Torre says.

DLSU-CSB itself has only 128 deaf students enrolled in its four-year

provides it with \$1.1 million every year. It is a cooperative multinational network with Russia, China, the Philippines and Japan as its main partners.

DeCaro was in town last March to inaugurate another multimedia facility, called the PEN Learning Center (PEN-LC), which is also for the exclusive use of hearing-impaired students in the campus.

This new facility, which cost \$35,000, also has 20 PC workstations but it features a mini-library and consultation rooms where students can have their on-one counselling or tutorial sessions.

"The room can actually be divided into two, with 10 computers each, for holding two classes simultaneously," says Viernes, adding that unlike the first facility, this one was designed more for the deaf class with its wooden floors and additional lighting.

Why wooden floors and an elaborate lighting system? "They are used to attract attention," Viernes says. "When you stamp your feet, the others feel the vibration and get the message and when you switch on the light, you get someone's attention."

DeCaro, however, is the first to emphasize that technology is merely a tool.

"Technology can enhance learning and classroom instruction but deaf education is no different from regular education. When deaf students graduate, they should have the same level of skills as the hearing

The PEN Learning Center also serves as a resource center for deaf students and their teachers, ensuring that technologies and reading materials are easily accessible for one-on-one or small group consultations and tutoring.

"A lot of times I wonder if I will have the same opportunities which the hearing graduates have. I wonder if college education would open doors for me. And I wonder if society will accept me as deaf," Ana, a first-year student, signed during the inauguration of PEN-LC.

Ana might as well have communicated the thoughts of every deaf student all over the country.

De la Torre says that while the focus of SDEAS education is to train leaders who will advocate issues of the hearing-impaired and serve as models in the formation of their identity, the hostile world out there is a big challenge to overcome for the non-hearing.

De la Torre explains that for the hearing-impaired, the ability to communicate both with hearing and non-hearing people is a critical component in their academic formation that will eventually make or break their chances of finding employment after college.

Improving lives

"Before I entered CSB, I wished to work with computers," says Jennifer Ramirez, now a deaf encoder. "College enhanced my skills in communicating with hearing people. So when I found a job, I grabbed the chance so that I could support myself."

"I really wanted to be an engineer but the school only

find menial jobs in the community, De la Torre says.

DLSU-CSB itself has only 128 deaf students enrolled in its four-year baccalaureate program, a mere handful from the thousands of deaf youths who need some form of post secondary training in order to find gainful employment later in life.

At present, most deaf students at DLSU-CSB are non-paying students since the school subsidizes their tuition – a small contribution of the DLSU system in giving education to people with special needs, says De la Torre.

"When we were reformulating the mission of CSB and SDEAS, we found out that Brother Benilde, the Catholic saint after whom the college was named, had taught deaf students in his lifetime," De la Torre shares. "That is the foundation of our involvement with the deaf."

But DLSU's efforts are not enough. DeCaro himself emphasizes that governments must invest in this segment of society that is under-represented in employment.

"It is a need that should be recognized," he says.

In the meantime, SDEAS is valiantly trying to fill a need, no matter if its efforts are a mere drop in the bucket of a very large void, to help this segment of the Filipino youth get an education and become productive citizens within the context of their greatly changing silent world.