

# Technology puts teacher back in class

## Medical treatment keeps her homebound

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HALEDON

**A** ganglion cyst wrapped around a nerve in her right knee kept Beth Cochran in bed Wednesday, but it didn't keep her from teaching her Advanced Placement biology class at Manchester Regional High School.

Her pixellated image projected onto a giant screen via Webcam, Cochran led her four AP students through a lesson on transpiration, respiration, osmosis and bulk flow, all from her Old Tappan bedroom.

"Are you ready for the PowerPoint?" Cochran's voice chirped from a speaker propped above the blackboard, drawing up a slideshow on how water moves through plant cells.

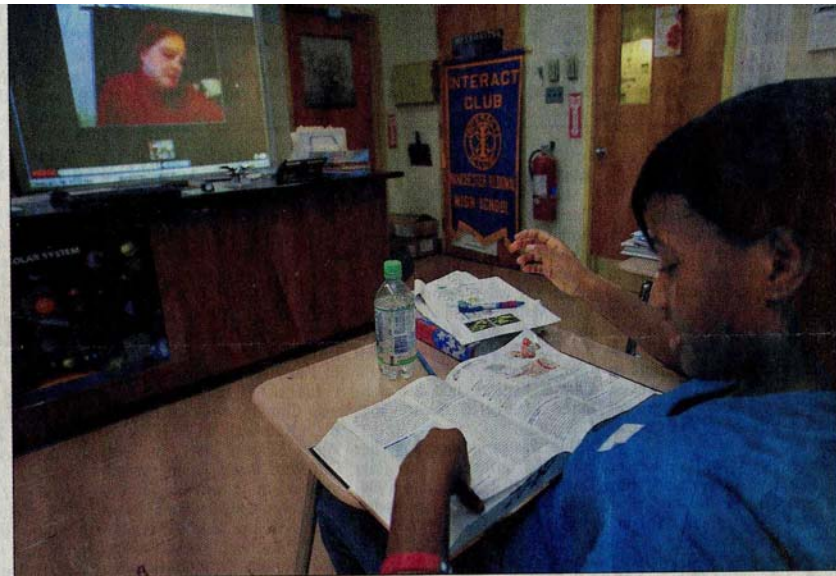
This is the first time that Manchester Regional has used videoconferencing for a class. Cochran, whose surgery is scheduled for today, planned to spend the next two weeks teaching her five biology classes from her home using the technology.

A little less than one week into the experiment, students and teachers were calling it a success.

"It's working out really well," said Ed Hayward, a technology teacher who helped set up the connection between the school and Cochran's home.

Cochran decided to teach from her home because she didn't want to abandon her students as the intense AP examination loomed for them. She received a master's of educational technology degree at Ramapo College, where students learned about distance learning programs, and also has taken a few online classes herself.

When she found out about her surgery, just two months before the students were scheduled to take the AP exam, she decided to try to put her daughter's Webcam to use.



ELIZABETH LARA/STAFF PHOTOGRAPHER

Rokiatsu Davies, 17, in her Advanced Placement biology class at Manchester Regional High School on Wednesday. Instructor Beth Cochran, at home preparing for surgery, appears on a whiteboard.

Cochran approached Hayward to put a Webcam in the classroom and create a connection using Skype, a free Internet service that allows a two-way video connection.

That way, students were able to see Cochran's image and Cochran was able to monitor her students. The school places a biology teacher in the classroom to supervise students, but Cochran is the main administrator of the class.

Cochran's lesson Wednesday included a YouTube video, a PowerPoint presentation on water transfer and a 15-question quiz. Everything, including a tiny box showing Cochran seated on her bed, was projected onto an interactive whiteboard. Both Cochran and her students could control the screen — Cochran with her mouse at home and the biology students with a special pen pressed onto the board.

Videoconferencing is slowly gaining popularity in schools, particularly small ones, Hayward said. In schools with only a handful of teachers, students have been able to take advanced courses at other schools with Webcams. The technology could potentially be used for students needing home instruction — instead of

sending teachers to four or five different residences, students could remotely access the teacher at the same time. The technique wasn't meant to replace live, in-person teaching, though, he added.

"A combination of the two is probably the best solution," Hayward said.

Cochran said teaching over the Internet wasn't necessarily harder than teaching in person — just different. "You have to refocus the material," she said.

So instead of running around or moving her hands to emphasize a point, Cochran used her variety of videos and PowerPoint screens to illustrate a point. She also spent much more time actively teaching during class.

Senior Ozlem Serif, 18, said concentrating in class wasn't made any harder with her teacher on a computer screen.

"We don't lose the experience," Serif said.

And according to junior Manviar Bawa, 17, the Web class hadn't stilted Cochran's teaching style. "Yesterday she threw a slipper at us," Bawa said. "It almost broke the Webcam."

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