

The Outlook
Digital Dissection
By Josh Grossberg
October 10, 1997

Crossroads middle schoolers use computers, not creatures, to study frogs

When the topic of frog dissection comes up, a small number of students at Crossroads School in Santa Monica get a bit jumpy. They can cite a litany of reasons, moral and ethical, why they think cutting an animal is wrong.

They now have a new argument.

As 14-year-old Eva Sweeney succinctly put it: "Dissection is pointless."

Because of relatively new computer technologies, these students, members of Students for the Rights of Animals, can now dissect digital frogs without ever having to touch real ones.

Thanks to the availability of computer CD-ROMs that offer virtual dissections, the club was successful in having dissection banned from all middle school classes at Crossroads.

Now, instead of cutting a frog, students can use a mouse on their computers to probe amphibian innards. That way, only one frog had to die when the software was made, instead of hundreds that students would have gone through in a year.

"Studies are showing that they are learning the same information using the CD-ROM," said science teacher Frank Baele. "It has the same educational value. They won't get the same experience, but it's going to be fine."

The issue of frog dissection gained national attention in 1987 after a California girl refused to participate, citing moral beliefs. The case led to a 1989 California law allowing students to refuse to dissect animals.

An estimated 5.7 million animals are killed each year for dissection in colleges and high schools.

Crossroads is among a small but growing list of schools that offer a high-tech alternative to dissection. The ban hasn't reached to the campus's upper school yet, but club members are working on it.

"We feel that dissection is wrong and unnecessary," said club co-president Lizzie Carlisle, 16. "We decided we want to get dissection out of Crossroads."

When the students presented their case to school administrators, they got a positive response.

"When these kids came, I was impressed with their presentation of ideas," said middle school director John Sullivan. "I asked my teachers to listen to them. They convinced us that the policy was important to our school. Crossroads being Crossroads, we try to be on the cutting edge of things."

He also said it makes good business sense.

"It's important to look at the cost effectiveness," he said. "Buying software once is cheaper than buying lots of frogs."

Crossroads teacher Evris Tsakirides said that dissection is not a common practice elsewhere in the world.

"I grew up in Greece," he said. "We did not dissect at all. We used pictures and models. Many of my colleagues followed medical careers."

For the students in the club, putting an end to the practice only makes sense.

"We feel it teaches a disrespect for life," said student and co-president Jennifer Hahn. "We feel that when kids dissect a frog, it can be traumatic."

Sullivan agreed. He said dissecting animals can be detrimental to students.

"I dissected a frog in the eighth grade," he said. "It turned me off of pursuing a field in biology."

Not only are animals being saved, so too is the environment, club members said.

"It's not only an animal issue," Carlisle said. "It's also an environmental issue. Large populations of frogs are being decimated. And formaldehyde is dangerous."

Club advisor Melya Kaplan said students, who meet once a week, have been involved in a variety of animal-rights issues, ranging from petitions to anti-fur demonstrations. She is proud of what they accomplished.

"For a half-hour, one day a week, these kids have moved mountains," she said.

Given the array of software programs that can teach about animal innards without requiring students to wield scalpels, Oberstein said, "keeping dissection is like being stuck in the Middle Ages."

Since fall, Oberstein and a classmate, Lindsay Weber, have waged an impassioned campaign to get Brentwood's new head of school, Michael D. Pratt, to re-think his decree. They recently organized a "teach-in" at the private New Roads School in Santa Monica to discuss the issue and rally support for their cause.

So far, Pratt has listened politely to the students' concerns but has refused to budge. Dissections have not yet resumed, but teachers said they could begin any time.

"This has historically been an important issue for the school," Pratt said in an interview at Brentwood, a campus with 673 students in seventh through 12th grades. A recent alumni survey, he said, indicated that a high percentage of former students viewed the absence of dissection as a deficiency in their preparation for college.

When Pratt took over last summer as head of school, science teachers began lobbying to reinstate the practice his predecessor, Hunter Temple, had banned 12 years ago.

Trained as a historian, Pratt said he dissected just one organism in his life – an earthworm – in 10th grade biology. He described himself as an animal lover who regularly gives his dachshund the run of his office.

"I have no personal stake in the issue," Pratt said. Generally, Pratt said, academic departments within schools should make decisions about curricula. He intervened on this issue, he said, because of the ethical dimension.

He said he dutifully read arguments on both sides and listened to faculty and students in private and school meetings. His decision, he said, was “based on the gestalt of the evidence.”

Teri Redman, who teaches ninth-grade biology, said she has tried for years to instruct students about dissection using software simulations.

“It’s not the same at all,” she said. One program, Operation Frog, showed an animated heart beating. “It was all really neat,” she said, “but just a completely different experience.”

Questioned in their classroom, Redman’s students were divided in their opinions. One opponent said her father, a neurologist, told her that practicing dissection didn’t particularly influence his decision to become a doctor.

Others said dissection would be a good learning experience as long as they could be certain the animals had not been abused.

“Assuming we enter college, we don’t want to be at a disadvantage with our peers,” said student Teddy Kim. “In a general sense, all people should agree the human race is superior to all other forms of life.” Dissection can be used, he added, “to promote the health and well-being of the human race.”

Cay Enns, a Brentwood graduate who teaches science and philosophy at the school, said she is excited about the shift.

“I really love cutting into a sheep’s brain,” she said. In its basic structure, a sheep’s brain is almost “identical to a human brain.”

“When I dissected, it made me want to be a surgeon,” she added. “It’s a tactile thing. You can’t replace it.”

The Brentwood science department has assured students that it will buy only animals or animal parts that are byproducts of the meat industry or euthanized by the Humane Society. All purchases will be made from supply houses supervised by the U.S. Department of Agriculture. Fetal pigs will be used in ninth-grade biology, with cats reserved for advanced science classes.

An informal survey by the Brentwood teachers found that most other independent schools in the area encourage whole-animal dissection. A few schools steer clear however.

At Crossroads School for Arts and Sciences in Santa Monica, the science department head uses only animal parts in his anatomy and physiology classes. And he gets grief even for that from an animal rights club on campus. He said he sees the students' point

"Biology is the study of life," teacher Michael Sommers said. "It's kind of incongruous to say, 'Let's kill this and dissect it.'"

California's education code, which governs public schools, states that any pupils who have a moral objection to dissection may choose not to participate without fear of having their grades suffer, said Phil Lafontaine, a consultant with the California Department of Education.

"Our mantra is that the kid has the right [to opt out] and the school district should have an alternative available, rather than leave the teacher hanging," he said.

Mike Grasso, the science department chairman at Brentwood, said no student will be forced to dissect.

Such assurances do not sway Oberstein and Weber. At the teach-in – which attracted about 50 adults and students – Weber recalled how her dream of becoming a doctor almost died when her sixth-grade class dissected frogs. When the teacher went out for coffee, she said, pupils began slashing off frog limbs and throwing them at one another.

"The memory has haunted me ever since," she said. She still plans to pursue a career in medicine, she said, adding: "I hope to be up here talking about how I became a doctor without having to dissect."

Jerry W. Vlasak, a trauma surgeon and advisor to the Physicians Committee for Responsible Medicine, a health advocacy organization, said he went through medical school without dissecting any animals.

"No surgeon in this country learns how to be a surgeon by dissecting animals," he told the teach-in participants. "We learn everything we need on humans."

As is often the case in such highly charged debates, few people changed their views about dissection at the teach-in.

But it pleased Oberstein that Redman, his teacher, was so impressed by some of the 3-D software that she plans to set up a demonstration

for Brentwood's science faculty. Oberstein hopes that software programs could enable the school to use fewer animals.