

## EDITORIAL

# The Boy Scouts Said It Best: Some Advice on Case-Study Teaching and Student Preparation

I was a failure as a Cub Scout and a Boy Scout. I never got past the Tenderfoot stage. And Sea Scouts was a wash too, though it really wasn't my fault there. It was *mal de mer* that did me in.

Yes, there really is a Sea Scout organization, at least in California where I grew up. I joined when I learned they were going to take an overnight voyage to Catalina Island to swim in opalescent, pristine waters where you could see the bottom 30 feet away. To prove my sea worthiness, I learned to tie a few sailors' knots—half hitches, hitches, bowlines, and other such rope intricacies that most of us see only in port curio shops plastered on varnished boards and sold to landlubbing tourists. Knots, that's what Sea Scouts do.

And when I passed my apprenticeship, I hopped aboard an old landing barge with the rest of the Sea Scouts harboring visions of Moby Dick. Instead, I succumbed to the smell of the oily bilge water and the rolling waves, and promptly got sea sick. That's not what Sea Scouts were supposed to do. Catalina be damned! That was the end of my scouting adventures. I was not cut out for it.

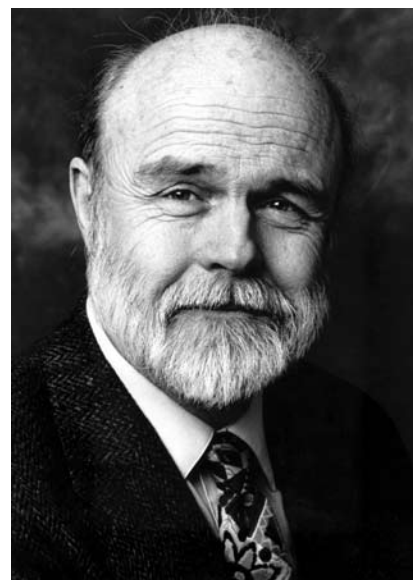
I am not sure that I learned much in these ill-fated exploits. The knot knowledge has left me and how American Indians avoid chapped lips seems to have slipped my mind, too. But one thing has stayed with me until this day: the Scout motto, Be Prepared.

Everyone knows the slogan. I didn't have to join the Scouts to learn that. But it seems singularly important to raise the issue of preparedness in regard to case-study teaching; not to emphasize the obvious point that teachers need to be prepared as they enter the classroom, rather to focus on that legendary poorly prepared entity—the student.

Students are seldom prepared. They have many things, most not related to school, on their minds in college. In large classes in particular, student attendance falls off precipitously with each passing week of the semester, regardless of the skill of the lecturer. But no matter, say the most censorious of profs, it is their loss.

As for those poor students who do attend our lecture classes, let's give them their due. It seldom matters if they come to class prepared; i.e., having read the assigned reading for the day. They soon find that the teacher will cover the stuff anyway. So they sit back, jot down the notes, and memorize them in a frenzy of short-term memory overload for the exam. Preparation for a class? What's that? Get a life—there's a party on.

But our frivolous students come a cropper when they find themselves in a case-study class where their lassitude and ennui can do them in. Unfortunately, the instructor and the other members of the class also pay a price for someone's lousy preparation.



Clyde F. Herreid

What can we do to come to grips with this perennial problem, getting the immature student to prepare for the case? Here are some thoughts.

## **Solution number one: Do not require any outside preparation!**

Make all of your cases self-contained. Either put all of the information in the case or provide the necessary information as the case unfolds. This really is not a bad solution. You use the classroom to teach them everything. "Giving Birth to Someone Else's Children? A Case of Disputed Maternity," contained herein, is just one exam-

ple of a case study that is entirely self-contained. The other cases in this issue are, too.

Grades for case work will depend upon the assignments or tests that spring from the case. All other techniques I know involve our old friends: reward and punishment. These rewards and punishments can be either extrinsic—where you send unprepared students to the corner or give them a lollipop when they are prepared—or intrinsic—where students are motivated by the personal satisfaction or disappointment that comes when one learns or doesn't learn something. Let's take a look at some of the old-time favorites that are clearly in the hands of the teacher.

### **Solution number two: Give them a quiz right at the start**

They should know it is coming, every day before the case begins. This is one of the steps advocated in the book *Team-Based Learning: A Transformative Use of Small Groups in College Teaching* (Michaelsen, Knight, and Fink 2002). Students get an individual quiz the moment they enter the classroom. Adding another coercive element, this is followed by a group quiz over the same material.

### **Solution number three: Use small groups where each member has to contribute or the group as a whole will suffer**

The assignment must be so large or complex that it cannot be done alone. If you give any other kind of assignment, the workhorses in the group will do the whole project and the social loafers will hang on for the ride. So projects need to be big and complex.

But I know what you are thinking: How do we make sure that a poor-performing individual in a group will not sabotage the group effort? The answer is peer evaluation, where group members evaluate the contributions of other members of their team (see my column, "When Justice Peeks," in the May 2001 issue). In this method, if the peer evaluations fall below a particular threshold, recalcitrant students will not just lose points, they will fail the course. This gets their attention really fast.

Here is the essential fact about working in groups: Individuals will almost always work harder for their peers because of the group coercion than they will for the professor. Using small groups usually prompts students to prepare ahead of time.

### **Solution number four: Grade on participation**

Yes, I know that you probably don't like this, but the folks in business schools and law schools frequently grade on participation even in class sizes of 70. Instructors keep a seating chart in front of them, and as they call on students they tally the quality of the student contributions, cataloging them in three categories: good (+), bad (-), and indifferent (0).

### **Solution number five: Have all students turn in a product (e.g., short paper) that they bring to class**

This is often the simplest solution because you, as the instructor, are on familiar ground. You know how to grade papers.

Of course, there are other coercive and unsavory techniques, such as browbeating the beleaguered students. But to sum up, here is my essential point: Without some method to ensure that your troops are prepared, your case teaching will suffer and probably fail. Neither you nor your inner Scout will be proud.

#### **References**

- Herreid, C.F. 2001. When justice peeks. *Journal of College Science Teaching* 30 (7): 430–433.
- Michaelsen L.K., A.B. Knight, and L.D. Fink. 2002. *Team-based learning: A transformative use of small groups in college teaching*. Westport, CT: Praeger.

---

*Clyde F. Herreid* (herreid@buffalo.edu) is co-director of the National Center for Case Study Teaching in Science at the University of Buffalo in Buffalo, New York.

---

**Looking for JCST articles from years past?**

**Want to know the latest science news?**

**Need to find author guidelines?**

Visit us at [www.nsta.org/college](http://www.nsta.org/college) to see our updated website and expanded online database of feature articles, read the latest in science news, find access to author guidelines, and so much more!