

RIVER IN A BOX

*Tell me and I will forget
Show me and I may remember
Involve me and I will understand*

I pulled the mysterious looking aluminum bound box out of my drybag. "This is my river" I said. That got their attention because it didn't resemble any river they had ever seen. We were seated around a picnic table next to the river. I opened the box and pulled out some sticks and stones, some pieces of white foam, a small handcarved railroad bridge and unrolled a four foot long strip of blue jean with a curve at the end. "This is the Blue Jean River. I want you to put all of these things where you think they should go on the river." They placed the stones (there is even a little undercut rock) on the eddy lines drawn on the blue jean, made a dam by putting the dowel roller under the jean with a piece of foam at the bottom, placed the bridge below the curve, and turned the sticks into strainers.

It doesn't matter whether they put things in the "right" place or not, because I ask why they placed each feature where they did. We discuss why rocks are usually not found at the bottom of downstream Vs, what causes the hydraulic at the bottom of dams, why more strainers tend to accumulate on the outside of the curve and against bridge supports. After having each student talk about the dangers of the hazard they put in place, I add whatever they missed. Then I ask them to identify what similar features they can see on the real river. In this way, rather than lecture about hydrology and river hazards, we can have a productive discussion in which they actually do most of the teaching.

When we have finished hydrology and hazards, we take a little break and when they come back, I take a little carved canoe out of my pocket and ask one of the students to show me how they would run the river. This leads into a discussion of river maneuvers, and the boat can be used to show angle momentum and lean and how maneuvers are actually done.



During post course evaluations, the river in a box is always mentioned as one of their favorite parts of the course, and I have been told many times how helpful it was to see how each of the maneuvers is performed. Of course after the maneuver discussion we immediately demo the maneuvers on the water, and then get the students in their boats ASAP.

Over the years, it has been my pleasure to see various kinds of strange boxes showing up when some of my former instructor candidates teach moving water.