Buiding Teaching Units from Trade Books

Thomas Kent Hinckley
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by Thomas K. Hinckley

In my lifetime, one of the big changes, in all levels of education, has been the proliferation of the textbook. We have come to expect a full array of canned exercises, test files, supplementary material, along with a full-color text. The text purveyors have developed a finely tuned marketing survey that tells them exactly what they already knew they wanted to know. The end result of these self-fulfilling prophecies is that it is now possible to change from one text to another without even having to change one's lecture notes. My discontent with the glitzy text started with the test files when I realized that they only tested short-term recall. I want tests that encourage students to organize their ideas into the broader conceptual sweep.

I want units that are tied to the real world—units that have a means of verification. I need units in which I have some personal competence which will generate enthusiasm and interest. It is shattering when a student says, "But the book says . . .", which invariably happens when I am working with a canned unit. Given the growing discontent with the generic textbook, what can be done?

The fastest growing segment of juvenile publishing is the informational book. How can the teacher go from the pre-digested pablum or canned unit to a real-world unit? Use informational books. I think it is easy because it need not be done in one fell swoop.

When I was in the military, I learned from all the night war games that if you look directly at an object in the dark, it is likely that the cones located in the retina of the eye will not pick it up. If you look to the side of the image, the rods, being more receptive to small changes in intensity but not color (which you cannot see in the dark, anyway), you suddenly see things that you could not see with the cone part of the retina. When I first started making units, I found that nothing led to a direct one-on-one conversion from canned to real. But using informational books, a whole new area opened up. Byrd Baylor's Everybody Needs a Rock (pet rocks) is a favorite example. We followed all ten rules and got everyone a pet rock. Then we decided to look at other kinds of rocks and not follow all the rules. I went to a friend who sells marble for floors, walls, and countertops. In the storage yard, he helped me find broken fragments of marble from all...
over the world. We did a free-wheeling unit on Pet Marbles. We talked about quarrying the marble and transporting it halfway around the world. Why is marble from Alabama more expensive than Twilight Jade marble from Taiwan or Rojo Alicante from Spain? And then I remembered that we used to have a marble quarry in Utah County. Birdseye marble—an oolitic marble—came from Birdseye, Utah. Next time I do the pet marbles, I hope to have a local sample.

One of the basic rules of building units is to keep adding and changing. To do the same unit over and over only demonstrates the law of diminishing returns. In order to continue the unit on rocks, I began looking for new ideas. Then, in one of those sideways glances, I remembered going to the stone yard in Bangkok, Thailand, and seeing all those marble gravestones. At the time, I thought they used marble because it was all they had. Now I know that limestone is the most resistant rock in the tropics and marble is a form of limestone, so this is a good choice. Now we are planning a photo expedition to the local cemetery to take pictures of the gravestones that are the most resistant and the ones that have weathered the most. If that works well, I shall start writing to friends around the world asking them to send me gravestone slides.

I think that units should be interesting, and they should provide for plenty of student involvement. In the public schools, we generally start in kindergarten with units from the immediate neighborhood. As students advance, we study the home state, the USA, and finally the world. As the horizon expands, it is useful to maintain local connections for comparison and contrast.

One of my favorite units is "Ten"—ten anything. Ten favorite books, ten favorite foods, or ten of any other category. I send my students off to make a list of the first ten things they pick up when they go home. Where do these items come from? How far away is that? If they change shoes, where did the shoes come from? If they get snack food, where was it manufactured? If they turn on the Boom Box, where was it made? Over the years, as we have worked this out using the atlas, the average distance of the ten items was 5,000 miles. Now that the clothing stores are demanding quicker restock time and most clothing manufacturing is being moved back to the USA, I suppose that the average distance will become less. More expensive transportation will have an impact also. Growing up in a world where almost everything came from within a 50-miles radius, I find it incredible not only to get durable goods from all over the world, but to get candy and cookies and other snacks from the Antipodes. The other day in class, we were talking about where the lobster tails in the local fast food chain comes from. That created surprise. (No, I am not going to tell you. You go find out. Asking dumb questions is the basic step to any good unit.)
One year we went to the state fair and listed all the different breeds of cows, horses, rabbits, pigs, sheep, chickens, etc. Then we came back and worked out where all these different animals originated. Since most of the breed names are place names (Holstein, Gurnsey, Jersey, Arabian, Hampshire, Orpington, etc.), this unit was a lovely learning experience. There were many helpful books in the library.

Weather is always interesting. Every semester, everyone in the class keeps a tin-can rain gauge. On the last day of class, we record everyone's total on an overhead transparency and then talk about the patterns of distribution. Generally, the amount of precipitation increases with elevation. My gauge is located at 4,493 feet above MSL (mean sea level), so I generally have the lowest reading. We do personal weather forecasting using wind direction, clouds, and sensible temperature. My students do not believe me when I tell them that they can use a cricket's chirps as a thermometer (chirps in 14 sec + 40 = temperature in F.). They are even more incredulous when it comes to the rhododendron thermometer. (Eric Sloane, *Almanac and Weather Forecaster*). Nigel Calder's, *The Weather Book* is also useful. George Stewart wrote a novel called *Storm* that tells the story of a major winter storm moving across the United States, which could also supplement a weather unit.

A third-grade class in Pleasant Grove, Utah, did a unit on how much water was historically available to the settlers, how that affected the number of people who settled there, and how much land they could bring under cultivation. There are many units that can be built to study water here in Utah. Unlike Goldilocks, the precipitation here is never "just right." We are always in a state of flood or drought.

Shirley Felts's and Jill Bailey's three-dimensional guide to woods, forests, meadows, and marshes, entitled *Naturescapes*, has proven to be a rich quarry. Last summer, I helped a friend do a unit on plants the pioneers brought with them to Utah. I love to do the unit on weeds because the students are always so shocked to learn that every weed in Utah Valley was introduced from somewhere else. All of the fruit trees were introduced. Most of the beautiful shade trees were introduced, as well as the weed trees such as the Siberian Elm, the Russian Olive, and the Tree of Heaven. BYU has an arboretum on the south side of campus that is laid out like the USA with the giant redwoods on the West coast, the Bald Cypress on the Gulf of Mexico (the Botany Pond) and the eastern hardwoods on the East coast. Local teachers might well end a unit on local trees with a field trip to the Arboretum. This can be arranged with the Botany Department.

I have had a lot of fun with Roxie Munro's inside-outside books of Washington, D.C., and London. One's enjoyment is increased by a personal knowledge of those cities; something our students do not usually have. So why not do an inside-outside book
of your local neighborhood? Younger students can draw the inside-outside views and older students could photograph the views.

There are hundreds of new informational books published every year. Though some are stunning, many are not, but all are useful for ideas. For instance, there was a series several years ago about families around the world. I did not like it because all the families were upper middle class. The family in India made me look like a peasant. So, why not put together a unit/book on families in "Blank" School. Write to an embassy of your choice and arrange to trade books with a school abroad.

There are a lot of neat units just waiting to be materialized. Why not snag one now?