
THE CASE STUDY

Cooking with Betty Crocker

A Recipe for Case Writing

Clyde Freeman Herreid

Measure into mixing bowl $\frac{1}{2}$ cup of warm water, 2 pkg. dry yeast. Add $1\frac{3}{4}$ cups lukewarm scalded milk. Stir in 7 cups sifted flour, 3 tbsp. sugar, 1 tbsp. salt, 2 tbsp. shortening. Beat with a spoon, cover, knead, let rise. Shape into loaves. Bake at 425°.

—Betty Crocker recipe for white bread, two loaves

There are more books published on the subject of cooking than on any other topic. Wander into any bookstore and you will witness the culinary literature yourself. Face to face you will meet Betty Crocker, Fannie Farmer, Julia Child, James Beard, and their culinary buddies waiting to charm you into gastronomic imaginings and entreating you to plunk down \$29.95 for their newest literary repast.

Not too far away, on nearby shelves, you will find books on how to garden, how to play the guitar, how to meditate with the latest guru, how to repair your Honda, and how to get right with God. There are instruction manuals for everything from becoming a magician to becoming, well, yourself.

There are even books on how to become a great teacher. Yet at Barnes &

Noble or Borders you are unlikely to find them. In spite of the growing numbers of books on this topic, they are poor sales prospects for the book seller. These books will hardly ever be touched by the average college teacher who probably doesn't even know of their existence, much less have one on his cluttered bookshelf.

Bearing in mind this neglected niche of publishing, and the flood of articles on education written each year that will never be seen by the practitioners in most classrooms, I am still ready to add another few thousand words, this time on the topic of how to write case studies.

I do believe that somewhere, somehow, an occasional person will actually read them and just possibly find something of use. It is akin to the wish that a person standing on a pier might have as he scribes a note and pops it into a bottle, caps it, and hurls it into the sea, wondering if anyone will ever find it.

In keeping with the cooking theme and addressing our concerns to case study teaching, let us pose the following question. Is there any recipe for creating a case? Is there something as dependable as a white bread approach to cases? Straightforward. Nothing fancy. Fortunately, the answer is yes. But before we start cooking, let's lay down a few principles.

Normally when a teacher gets inspired to write a case, he has a course in mind. He knows the students taking the course, their numbers, and background. He knows the guests that are coming to dinner, but he hasn't

decided on the meal. What he doesn't know is how this case that he hopes to concoct is going to fit in. (After all, it isn't written yet.) Nor does he know what it will teach exactly or what it will replace on the syllabus. Take a tip—don't worry about this yet. It's too soon to know.

Now that the general background is known, it is useful to point out that there are two general approaches. One method is to start out listing general principles that you wish to teach, then start looking for a good story that might teach them. The other approach is to spot a good story that seems an appropriate fit for your course, then ask yourself what principles you can illustrate with the case.

Whichever avenue you choose, you must choose reasonably soon what type of case-teaching method you will use. Will it be Problem-Based Learning (PBL) with small groups, or discussion based, or a debate, or . . . ? This decision can be put off for a time while you do some research on the topic, but it can't be delayed too long because your writing will be largely driven by the case method of choice.

There is one other set of principles to review before beginning. They are ones that I listed in a previous column, "What Makes a Good Case?" (*JCST*, Dec. 1997/Jan. 1998, pp. 163-165). A good case tells a story, is set in the past five years, creates empathy with the central characters, includes quotations, is relevant to the reader, serves a pedagogical function, requires that dilemmas be solved, has generality, and is

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short. These rules are not sacrosanct but they work most of the time.

So let's suppose I decide to write a case study, what steps can I take to get the job done?

First, you have to *decide on a topic*. If you already have a story line that intrigues you, this isn't a problem, but let's suppose that that isn't the situation. The next best option is to think of one or more topics that are important to your course. Is there any conflict, controversy, news item, or personal experience that is associated with the topic? If so, all the better. Ask yourself: Can the topic be linked to any contemporary problem such as global warming, environmental disaster, social issues? This is the hook (interest-provoking item) into the case.

Review and research the topic and the hook into the material so that you can see further connections and possibilities.

Rapidly write down all the possible principles that you might teach using this topic in your class. Don't evaluate these ideas at this time; you are brainstorming. But remember that when you start writing you are going to try and slip as many of these delicacies into your dish as possible.

Make a list of all the possible characters (fictional or real) who could be possibly affected by this topic or incident. Do any of these people have problems to be solved?

Write a draft of a case from the viewpoint of a person caught in the thick of the case problem. If there is a crisis looming, so much the better. The case can be written in a straightforward narrative, although techniques used by short story writers (e.g., flashback and dialogue) are welcome.

If you are writing for PBL courses, then the story line must be broken into two or three parts. In PBL, the students receive a page or two of the opening, then they need to do research before receiving subsequent pages.

As you write these sections *look for*

opportunities to introduce terms or concepts that are important to your course.

Not all of these must have been covered previously. You want the students to research these items as part of their preparation for the class.

After you have a draft, *go through the case again and list the major and minor topics that are likely to come up in a discussion of the case*. Hopefully, you will be surprised at the number of topics that you have slipped in, some that you originally had not planned.

After you have a reasonable version

at this point.

I thought the Galapagos theme was intriguing and encouraged her to do some reading. I didn't have a clue what might come of it. Over the course of many weeks, when Nancy could squeeze in the time, she began to unearth some basic facts about the islands: the unusual nature of the organisms, their docility, the dramatic increase in tourism, the havoc caused by introduced goats, cats, and rats on the native organisms, and the presence of a scientific research station.

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of the case, *write a series of discussion questions* to include at the end of each section. These study questions will assist your students to recognize the important issues embedded in the case.

With some revision here and there, your case is finished. There is still the issue of how to manage the case in the classroom. That will take careful planning. It may be straightforward, or it may be elaborate with role playing and student research. We'll leave that for another day. Here I would like to illustrate how we developed a recent case using the above steps. You will notice right away that the steps didn't come in the order that I mentioned above, yet the steps are all there.

Let me set the scene. A librarian (we'll call her Nancy) wanted to try writing a case study for my freshman Evolutionary Biology class. She had been interested in the Galapagos Islands for some time and was aware that they had played a significant role in Darwin's ideas on evolution. She thought that the topic ought to be a natural for a case. She knew little more

And she found an unexpected crisis. Ecuadorian sea cucumber fishermen had been ordered to stop encroaching on the protected waters. They responded by taking over the Research Station and held scientists hostage for several days, along with "Lonesome George," the only surviving member of a species of the giant tortoises! Now, here was a real hook.

I asked Nancy to try and start writing up her thoughts about the Galapagos. Could she think of a central character? Certainly there were many possibilities: a fisherman, a tourist, a tour boat captain, a park ranger/guide, a scientist, and so forth. She settled on a young scientist, Kate, who was there as a visiting research scientist studying the Galapagos tortoise, thrown into the turmoil of the political crisis. I suggested that we make Kate a young graduate student in search of a thesis project, to make the case more relevant to the students. So Kate was demoted.

In Nancy's first draft, she was able to slide in information about the history of the island, the tourists, the ani-

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mals, the scientists and fishermen, and the conflicts. It read well, but where was the science? This is always a central problem with any case having an ethical, social, or political hook. The author will ultimately be faced with how to get the science up front. The other “stuff” is so enticing to talk about that all too often the science gets left out. The same thing can happen in the classroom. The teacher must be sure that the science gets discussed first, before the students get enthralled with the politics and ethics. If you don’t do the science first, it is likely to be lost altogether.

It was now up to me. Nancy had gone as far as she could. After all it was my course. But what if anything could I do with this writing? I sat down and brainstormed all of the topics that I could think of that might come from the Galapagos studies. The list was impressive, including the geology of the volcanic islands and their remarkable formation, plate tectonics, the Galapagos rift and the formation of life in hydrothermal vents. There were obvious connections to history via Darwin, questions about where the organisms came from, and their adaptations. And there were a host of questions about species formation and extinction.

As I developed the list, I recalled the wonderful book called the *Beak of the Finch* written by Jonathan Weiner. It discussed the remarkable studies on the Galapagos finches led by the husband and wife team, Peter and Rosemary Grant. Working for over 20 years on a couple of uninhabited islands, they had watched the ebb and flow of evolution in the birds through drought and El Nino deluge. They had collected striking data. Surely that would be part of the story.

Here is where I had to finally come to terms with the case structure. I now knew that I could blend in a number of major course topics with the case. I also knew that I could use this in my summer school class of 25 students

where I employ cooperative learning with permanent small teams. It was a natural step to say that I would set up the case in three stages using PBL strategies. I felt the case was too rich and complex to try in a single discussion or even two class periods.

It was easy to decide how to partition the case. First, I would deal with the geological origin of the islands, their description, Darwin’s visit and musings on the colonization of the islands. I decided to do this having Kate standing on the edge of a volcano and thinking back over their history, telling only parts of their past and alluding to others. The study questions sharpened the focus on these items.

The second part of the case, given to the students on their next day in class after sharing information with each other, dealt with the rate of evolution and selective pressures. Here I drew heavily upon the *Beak of the Finch*, raising questions and problems that faced the Grant research group. I decided to write this in dialogue form between Kate and the Director of the Darwin Research Station. He was trying to talk Kate into focusing her research on the birds or iguanas rather than the tortoise, thus giving students the opportunity to discuss the Grants’ work. Again, a series of study questions focused attention on problems of speciation.

The final section was Nancy’s piece. Here we find Kate fully committed to her tortoise project and weeks into research. Suddenly, the sea cucumber crisis erupts into an open debate in Ecuador and is described for the first time in the case. The student groups are asked to take the view of one interest group (e.g., scientists, fishermen, tourists, conservationists) and examine its position, concerns, strengths, and weaknesses. Then after say 20 minutes, the groups are shuffled (jigsaw) so that there is a mixture of people from different interest groups placed together.

With a “politician” running each group discussion, these people must try to reach an acceptable compromise. After suitable time, a whole class discussion led by the instructor winds up the case and students turn in follow-up papers.

So how did Kate get into this mess of being drawn into the politics of Ecuador and watching her research career possibly go down the drain? We did it to her in a series of well-measured steps. First, we chose a general story topic that appealed to us. The Galapagos had possibilities. Second, after some research we listed a bunch of course principles and terms that could be linked to the theme. Third, we created a character whom we dropped into the middle of the mess, wondering about the ways of the world. Kate was born. Fourth, now that we had a personality, we gave her a voice to tell the story from her viewpoint. That story was divided into several chapters, like a Saturday movie serial or the *Star Wars* movie with the audience knowing there were more adventures in store. Finally, we wrote a series of study questions for each episode to focus attention on the science of the case. (You can see the final version of this case by checking: <https://sciencecases.lib.buffalo.edu/>.)

There you have it—a white bread approach to writing cases. It is direct and familiar. Nothing fancy. It gets the job done. You can throw in a few raisins or some cinnamon to perk it up (like the role-playing exercise at the end), but it is still white bread. Dependable.

There are other ways to plan the meal. There are recipes galore to dream about for case writing and cooking. Just the other day I was thinking of this Texas barbecue approach.

Take 3 lbs. of spare ribs. Mix 2 tbsp. brown sugar, 1 tbsp. paprika, ¼ tsp. chili powder, 2 tbsp. Worcestershire sauce . . .