Using Science Fiction to Build Research Skills

Eugene Zasadinski

Most writing instructors worry about teaching students the fundamentals of research writing. They soon discover that their chief problem is not teaching mechanics and library procedures but generating some interest in the assignment. Certain attitudes are prerequisite to the writing of research papers and must be encouraged in students by instructors. Instructors must stress that research skills are necessary; that they are perfected only by practice, and that students are not expected to produce professional results the first time out. Instructors should let students know that student reluctance to do research is normal and understandable. Instructors have known for years that students are intimidated by the prospect of doing research, but that fear can be dispelled if the instructors help students realize that research is a natural and potentially exciting activity.

What I would like to discuss is an exercise in science fiction which poses an interesting challenge that should help inexperienced writers overcome their fear of research, build their research skills, and eliminate the inevitable frustrations that students experience when they produce research that is mediocre at best because the students have no interest in the research. Science fiction is popular with high school and college students. Dealing as it does with the hard facts of science, the accuracy of which makes speculation about the future believable, successful science fiction clearly depends upon solid research. Science fiction writers are also skilled and practiced researchers, experts from whom students can learn. By the time writers of science fiction publish their work, their facts have been gathered, verified, and arranged in an effective story. The exercise I propose requires students to trace the science fiction writer's research process, to work backwards from the finished product—the story—to an earlier point when the story was being researched.

To do this, students need contemporary science fiction stories to work with. Among many sources, the best are magazines such as *Isaac Asimov's Science Fiction Magazine, Science Fiction and Fantasy,* and *Analog*. They are inexpensive, offer a good selection of contemporary short science fiction, and are preferable to novels, for what students need for this exercise are problems that are various but limited in scope, those developed in stories that can be quickly read.

The first part of the exercise is, perhaps, the most pleasurable. Ask students to read a selection of the stories, choose the one they like best, and reread it. During the second reading, ask them to focus on one aspect of the story which, because of its technical or arcane content, implies the author needed to research the material. "Firebird Suite," Richard P. Russo's story in the September 1981 *Amazing,* will illustrate what I mean. The story involves a woman whose ability to manipulate fire is intensified by electro-surgery. To make this story convincing, the author obviously needed to research several areas, such as telekinesis and parapsychology.

Once students isolate the research problem, they must try to recreate the author's research, and the place for that is the library. Ask them to go through the card catalogue, indexes, bibliographies, books, and journals so that they become familiar with the areas the author must have gone through. If students choose an area which really interests them, they will become involved, as all

real researchers inevitably do, in the thrill of searching for facts. They may even enjoy themselves so much that they will be surprised to realize they are actually doing the hard work that research entails. Of course, the sources that they will use will probably not be the same as those used by the authors of science fiction stories, but that isn't important. They will be gaining valuable practice in the same methods, and that *is* important.

Once students have finished investigating a research problem, have them move on to another, either in the same story or a new one. After they have investigated several problems, you can lead them to some research guides. There they can discover how research is formally conducted and organized. But first, they should try to find the information on their own. The mistakes they'll inevitably make will be instructive, and most reference librarians are usually willing to help novice researchers with their searches.

If students practice this exercise, they will not only soon find themselves familiar with the tools of research but they will also find they have acquired other benefits, the most important of which is the knowledge they will gain. This research exercise will sharpen students' critical faculties both as readers and writers, for the very act of asking themselves why something exists in a piece of writing raises other questions about structure, style, and thesis, yielding valuable insights into the writer's craft. And time spent in library research will generate new ideas and reinforce procedures that will eventually be useful in other research projects.

The exercise yields other valuable results. Students find themselves interested in what they are doing and have a stake in the quality of the finished product. Students are not initially overwhelmed by textbooks and procedures as they are inevitably when theory is divorced from practice or when theory is not immediately applied to some practical projects students care about. Finally, students will find that research is challenging and intellectually stimulating, not tedious or forbidding.

Eugene Zasadinski teaches at St. John's University in New York.

For Barbara (on the Death of Her Student)

Mourn in the yard with the snapdragons
because *none* of it makes any sense:
not the weeping of the trees,
not the peeling of the paint,
not the tilt of the fence.

Find something that *can* be repaired:
the lawn that needs edging,
the hedge that needs clipping,
separate the weeds from the strawberries
and let the ripe fruit
pour into your apron.

For now anyway
you can't even hurt a fly,
but cup its frightened buzzing
between your palms
and set it somewhere
gently.

Roz Young
Brockton High School, Massachusetts
