The traditional research paper is a hothouse flower, existing only in the quiet recesses of English departments. There is much research being done outside the university but approach, format, and philosophy of both research and the research paper differ dramatically from the models presented to students. Classes on the writing of research papers can be made more realistic by: (1) having students find some problem in their professional, personal, or academic life that needs to be solved by research; (2) making sure that students already know quite a bit about the topic on which they will be doing research; and (3) having students choose a topic that is practical rather than theoretical, and technical rather than academic. Students should be encouraged to use well-designed magazine articles as models for the format of their papers, and all the writing the students do in class should be actually and immediately connected to their paper. (Author/RS)
WHEN WORLDS COLLIDE

by

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Presented at the CCCC,
St. Louis, MO, March 1988

The traditional (note-taking card catalog MLA stylesheet plagiarism-free at least ten pages choose an interesting subject don't write on child abuse do your own research and make it sing) research paper is a hothouse flower, existing only in the quiet recesses of English departments. There is much research being done outside the university -- more, probably, than inside -- but approach, format, and philosophy of both research and the research paper differ dramatically from the models we present to our students. This paper explores some of those differences and suggests ways of making our research paper classes more realistic.
PROBLEMS

There is, of course, a certain amount of hubris in my title, with, I hope it is recognized, some humor. And some seriousness, because I do operate in two worlds, and there is tension between them. In fact, in some ways they are different indeed.

Let me set the scene first, then illustrate what I mean by the differences. I lead two lives: most of the time I am a mild-mannered university English professor, wearing a baggy tweed jacket with leather elbow patches, eyeglasses slightly out of line, teaching graduate classes in such mundane subjects as modern rhetorical theory.

Oh, yes, and I teach research paper writing classes. I teach note-taking (does one use 3X5 or 4X6 cards?), bibliography methods, parenthetical referencing, the ins and outs of the library system (We mix Dewey Decimal and Library of Congress at USU), how to avoid the monster plagiarism, how to introduce a topic, how to build it up, how to present evidence, how to reason --in short all the trappings of the way we all have learned to write research papers.

However, once or twice a month, something happens to me. I get a mysterious phone call, and in response catch a plane to Boston, or Norfolk, Virginia, or San Francisco. I shed my academic regalia, and no one seeing me in my three-piece suit, yellow tie, tasseled wingtips, and leather attache case would recognize me as a professor.

Instead, my dress and demeanor shout consultant. For a brief two or three or five days on the fast track at some government installation or corporate office, I teach workshops in technical, business, government, or research writing.

But I don't talk about note-taking, and I don't worry about plagiarism. Nor do I introduce my subjects to the intricacies of the library. I teach a number of different things altogether. When I teach research methods, for instance, I don't tell them at all about the Library of Congress list of Subject Headings; I tell them about the three part cataloging of the Department of Defense Index of Specifications and Standards, the Navy's Construction Criteria Base, or of the ways to use the Visual
Search and Microfilm catalogs.

This creates two main problems for me. One, and the easiest to overcome, is how to handle my re-entry into the university. I come from a very intense experience in which a person's research can mean thousands of dollars lost in a contract dispute to a class where a student is sulkily working on a paper on hunger in third world countries with nothing but a grade at stake and we both know it.

The second problem, and one that gives me the more trouble, is the nagging feeling I get in teaching my classes at the university that I am not really giving my students something that will do them any good. That I am teaching the research methods class backwards.

SOME DIFFERENCES

Let me illustrate by comparing the two approaches, the university and out there. I'd like to examine a number of factors, and then try to work my way out of the dilemma I've created for myself.

First: choosing a subject for research. In a research paper class at the university, one does just that -- selects a subject. Typical advice from a text might be, "Choose a topic that interests you, but not one that is too broad for you to cover."

Other animadversions might cover complexity (Don't choose a topic that is too complicated to cover easily); newness (Don't choose a topic that is so new that you can't find information on it); or oldness (Don't choose a topic that has been overworked, like anorexia nervosa). Some texts -- for reasons unknown to me -- recommend that a subject be chosen only if it has a debatable point of view attached to it.

From this menu, the student is supposed to select a topic for serious research. However, the nature of the assignment itself says to the student, "This is an academic exercise, separate from anything that might be important to you. Do the work and you will get a grade." An example of a "timely" topic for a research paper might be "A Comparison of the Plight of Today's Homeless with that of the Homeless in the London of Charles Dickens."

The abstractness of the assignment, the general uselessness of it, is firmly established in the mind of the student. And all of our lectures on the general and specific usefulness of research skills don't convince them otherwise.

I have never met a researcher in industry who told me that he or she gained valuable research skills in college; most complain that they didn't learn much useful at all.
Outside the university (except in a very few think-tank situations), we don't find the subject -- it finds us. And the way that the subject finds us is as a problem that needs to be solved. I would say, then, that out there, research is very much problem driven.

These problems are usually very practical and very immediate. For an oil firm, it may be that their offshore drilling rigs are over the horizon, line-of-sight communication systems won't work and the other types are too expensive. For a Navy shipyard, it may be that the new robotics systems are not making weld-ins actions that are rigorous enough. For the Air Force, it may be that they need to buy a specific kind of computer, and Federal Acquisition regulations forbid a sole source contract without strong justification.

In all these cases, the research is oriented to solving a problem, and the purpose of the research document is to present the solution to this problem. Thus, the focus is on research, and not on the paper. The way the research topic is found leads ultimately to a significant difference in the perspective one has on the paper itself.

Second: the research base. This has two elements to it: the database itself and the knowledge of the person doing the research.

I'll begin with the database. And here I need to make a number of heretical statements. The first is that the importance of an academic library and library system to the post-graduate lives of our students has been grossly overstated. Once a person has graduated and gone into a field of study, their research perspective becomes focused in a way that necessitates their acquisition of a set of research skills different from the ones they got in college. They settle in to a database that is organized differently from the college one, that is accessed differently, that proceeds from different assumptions about what is or is not important.

The skills they learned in college, about using card catalogs, indexes, references, and so on, don't help much, because it's very often a different kind of database altogether.

Let me give one example. A person interested in materials standards, or the evaluation of the quality of a metal, wood, paper, or whatever, would likely look for information in the American Society for Testing and Materials Yearbook of Standards, which is an extensive reference work. But, that person wouldn't use the yearbook the way one uses a library index, or a card catalog entry.

Now, let me move to the second point: the knowledge of the researcher. In college, the researcher does research to learn
about something, usually something the researcher has a vague interest in, but no real knowledge about. Now, while this may be a valuable learning experience, it isn't conducive to good research skills, because the researcher, knowing little or nothing, can't properly evaluate, or even arrange, data. The result is often a mixing of the good, the bad, and the ugly among sources and resources.

In a person's professional life, it would be suicidal to do research that way. In fact, nearly all research is done from a solid foundation of knowledge on the researcher's part. The researcher is aware of what's out there, whom to believe and whom to distrust, and where to go to find information.

In fact, I find that, except for new data, actually gathered in the course of the research, most researchers could write the reports from memory, then go to the sources to check if Joe Blow said what we thought he said, and where we thought he said it.

This means that there is a very different approach to the research project out there from the way we do it here. The university atmosphere tends to make the student rely a good deal on the teacher for guidance, reassurance, and scholarly advice. Since the student essentially doesn't know what's going on, that student needs frequent help, and needs a lot of hand-holding. It also gives the teacher the mistaken impression that the students aren't as bright as they should be.

Third, Plagiarism. In a nutshell, it's no problem out there. Far greater ones are lying, fudging the data, or creating a document that is a non-responsive contract (to throw in a little jargon). Most research documents I work with out there are collaborative efforts in the first place, and the attribution of ideas to a single person simply isn't important. When a reference is made to another person's or group's work, it is usually for one of two reasons: 1) to strengthen one's position, or 2) to satisfy copyright laws.

In other words, attribution of sources exists not as a demonstration of intellectual honesty and fidelity, but as a pragmatic matter -- it helps get the job done and covers the writer's legal tailbone. It's not that the writers are dishonest, but that the concept of honesty in print is not so narrowly and abstractly defined.

The feeling that borrowing another's thoughts is dishonest is to them faintly absurd. After all, ideas are to be used, excessive time spent in caring about the source of those ideas gets in the way of getting things done, and if a person really is that selfish about his or her ideas, why, let them take out a copyright and get a lawyer.
Fourth, Document design. When I am part of a team which is writing a document for a business firm, I so in close harmony with that firm's art department, printing office, and technical personnel. We consider the document as a visual artifact before we consider it as a linguistic artifact. Before the paper is even written, we construct a one-to-one page dummy of the document on the wall of wherever our workspace is.

Such visual details as headings, pictures, charts, and so on are carefully worked in before we ever set finger to keyboard. The idea is that no page should ever be full of unrelieved print, or even have large blocks of print, and putting in a picture purely for the purpose of breaking up the page is reason enough.

Contrast this with what I do as a teacher of research papers. I not only do not encourage my students to think visually at first, I don't encourage them to use visuals when they very properly and profitably could. What I get at the end of each quarter is pages and pages of dense typesetting art, with, if I'm very lucky, a heading or two. But, it's my own fault.

A RESTRUCTURING

I do not mean to suggest that we abandon the traditional research paper writing class, for it has many strengths. For one thing, it is good for a person to do research in order to learn about something of the world around us. For another, the hours spent in the library are, in some magical mysterious way, good for the soul, a sort of Zen meditational tranquility, where a person can, surrounded by voices that whisper over time and space, sample worlds that no longer exist, or that never did exist. In addition, the very process of research is a gratifying and soul-enlarging exercise. The ability to ferret out one datum from millions, the knowledge of information systems, is invaluable.

Still, I want to bring to my students something of what they will be forced to do as professionals, once they have left (In the case of Utah State) the country road for the fast lane.

To this end, I have tried to blend some of the outside elements into my research paper class. I'd like to present them to you.

THE ASSIGNMENT

As far as I am concerned, the assignments given by English teachers constitute the single greatest cause of bad writing.

As much as possible. I want my students to have their assignments choose them. To this end I say to my students something like the following:

1. Find some problem in your personal, academic, or
professional life that needs to be solved by research. By problem, I don't mean something like halitosis or a wretched love life, but something to solve, like a puzzle. It may be that the firm you work for needs a new microcomputer, or that you see a way to improve the routing of X-rays at the hospital where you work.

It may be that you raise Morgan horses, and want a superior breeding program, or want to know if a well can be drilled diagonally into the side of a hill. So, don't think of a research paper topic; think of a problem to solve.

2. Make sure that you already know quite a bit about the thing you'll be doing research on. It should be something that interests you, and something you can live with for a whole quarter. Ideally, you should be able to sit down and write out a pretty good paper on the topic without doing any research at all. So, this paper is to expand your knowledge, rather than give you knowledge in the first place.

3. Choose a topic that will do you some good. At the end of the quarter, after you've written the paper, I want you to be able to do something with the research you've gathered.

This means that the research should be practical rather than theoretical, technical rather than academic. If you must do research on starvation in Africa, go ahead, but I'd much rather you investigate how to design nutritional meals for the college student.

Now, no matter how hard I try, I always get one or two students who want to write on ABORTION, or CONSTITUTIONAL LAW, or CAUSES OF DIVORCE. I do what I can to dissuade them, but if they're set in their ways, I let them go. The result is usually a rambling, general, audienceless, purposeless paper. Not because they aren't bright (albeit stubborn) students, but because, I think, they have chosen papers with no inherent reason for being.

On the other hand, the majority of my students allow their topics to choose them. As an example: one girl came into my office and asked if she could do a paper on the psychological rehabilitation of microsurgery patients.

Her reply was a crisp, firm, "Say what?"

Microsurgery, it turned out, is associated with the reattachment of limbs or digits that have been cut off -- if you lose a finger to a power saw, microsurgery is used to sew everything back together.

Just the sort of thing I don't like students to write about. So I
asked, "Do you know anything about this?"

For answer she held out her left hand, a little nervously and a little shyly. The middle two fingers were circled at the base with a thin ring of scar tissue. They'd been completely severed from the hand, and reattached. The student explained to me that, for her and others she'd observed, the surgery was the easiest part of the procedure; what was hard was the mental stress.

Further, she told me, there was no practical guide for doctors, nurses, and physical therapy personnel on how to deal with the psychological trauma of microsurgery.

So, she wanted to write such a document. Now, note something. This document she was to write had fulfilled all the requirements I'd listed above. It was a very practical document: Helping the Patient Overcome the Stress of Microsurgery. It had a purpose which extended far beyond the boundaries of the classroom, it attempted to solve a problem, and she knew what she was talking about.

I agreed to the paper topic, it turned out to be an outstanding paper, and when I last heard, my student was working with a health organization to get it published.

I had one student who managed a half-way house for schizophrenics. When she started, she had to sort of learn as she went along. Her research paper was written for whoever would follow her, so that person wouldn't make the same mistakes she made. I had another student whose father was facing the ruin of his business. He was a beverage distributor, and one beer company said "Either get a large refrigerator, or don't sell my beer." The price of the refrigerator would have been prohibitive. The son chose to solve his dad's problem, and he did, by suggesting that his dad merge facilities with another distributor (Dad took his advice, by the way, and they kept the Coors cold).

The interesting thing is: I've yet to get a really bad paper from those students who let their topics find them. In fact, I generally have one or two students a year who actually get their papers published, sometimes in national publications.

**FORMATIING**

How does one give an all-inclusive set of instructions for a research paper? Does one choose the MLA Handbook? The APA Style Manual? Some other format? If one does that, one has essentially constructed a procrustean bed, since in a class of 25 students, not all, and perhaps not even a majority, are going to be doing research amenable to the way the MLA likes it done (Though I thank the MLA for recently bringing its style manual into the 20th century).
I cannot in good conscience require one way of doing things. An academic paper is not my aim anyway. Though my students will have to be using sources and documenting them, I consider this a minor segment important to me are the readability and presentability of the paper.

I have solved this problem my saying to my students something like the following:

1. **Think of your paper as an article in a magazine.** What sort of magazine would publish your paper? Would it be Field and Stream? Discover? Motor? The American Horseman?

2. **Find an article similar to the one you would write.** Look for the same level of technicality, audience appeal, length, and so on.

3. **Photocopy that article and use it as a model for your own.** Analyze the article, the opening, the presentational techniques, the transitions, the visuals, the readability level. Oh, yes, and hand in the article with your paper.

Of course, we work on structure in class. But we do so not by lecture, but by taking well written magazine presentations, ones that require documentation (Discover magazine is an excellent source), and working them over.

I do this because, to be blunt, a magazine such as Discover is miles ahead of any academic journal in document design, without sacrificing one iota of intellectual rigor (Most journals, for instance, still use a type-heavy, one column format).

**WRITING**

A third thing I do in bringing the outside world into the classroom is to make sure that all the writing my students do is actually and immediately connected to their paper.

I have noticed with some puzzlement that some texts and classes encourage the require the students to spend a great deal of their time writing on peripherals. They have to read an article and do a critique of it; they have to study logical systems and analyze them.

For me, I only have the students for one quarter, and that’s little enough time to write a research paper (Compare, for instance, how long it takes one of you to write a paper). As Snuffy Smith says, “Time’s a wastin’.”

As the research paper is the purpose of the class, I have them write the research paper. But, as writing a research paper in one
jump can be a daunting process, we do it in chunks.

First, I have them write an "exploratory" paper, in which they give the background to their topic, discuss the particular problem they want to solve, and speculate on ways they might solve it, or what they expect to find when they are done.

You’re probably already ahead of me, but then, you’re much faster than my students. What they don’t realize until after they’ve written the paper is that it can serve very well as the rough draft for the final paper.

Well -- three pages down, only nine to go.

The second paper I have them write (and they’re on to me by now) is one section of the paper, one segment of that they have to do. I set it up such that they will write a three to four page slice of the research paper.

As an example, I had a student, a wildlife photographer, who needed to select a new long lens for his camera, and had set up his paper to examine four lenses according to set of criteria.

Can you see it coming? I simply told him to write up an analysis of one lens. Four more pages down, only four or five to go.

I like three things about this approach.

1. It enables me to check very closely on the progress of the student.

2. It prevents the student from becoming frozen with the length of the assignment. By the end of the quarter, when it’s pressure time, the student has already written -- and had analyzed -- 6 to 8 pages of a 10 to 12 page assignment.

3. It allows the student to get used to me before the final judgement day. By the time the final paper is due, the student has a good idea of what I want that student to do.

A SUMMATION

I've no real data to support my contention that this is a superior way of teaching composition. However, from the responses I get from my students, and from the quality of papers I receive, compared with those I got when I taught the traditional class, I am convinced that this is the way to go. Or at least, one way to go.