

Writing Matters

From assessment studies conducted by The University of Hawai'i Manoa Writing Program

WHAT STUDENTS LIKE ABOUT RESEARCH PROJECTS

Students in our assessment studies tell us that some of their most positive learning experiences involve writing and research.

This is what students tell us they like about research projects:

- Meeting the challenge of becoming an “expert” on a topic.
- Searching for answers to real questions.
- Being surprised by the depth of information and quantity of materials they uncover.
- Working with guidance from experienced researchers—a special opportunity at UH Mānoa.

“I definitely learned what it takes to write a major research paper. Before, I had this general idea, but it’s a lot more work than I thought. The more I kept digging for information, the more I found. I never knew how complex my project really was.” — History major

WHY IS THIS SATISFACTION MORE COMMON AMONG SENIORS THAN IT IS AMONG UNDERCLASSMEN?

- ▶ Research strategies students learned in high school are often inadequate to college tasks. Underclassmen typically apply a research procedure they learned in high school: select a topic (often broad and “safe”); check out books from a library; make notes on index cards; organize the information in an outline; and write a report from the note cards and outline. Unfortunately, this cut-and-paste approach, which often results in a semi-plagiarized jigsaw puzzle of information, is devoid of the critical analysis and rhetorical shaping that characterizes what college professors consider research.
- ▶ Students often don’t comprehend basic research processes. They don’t see connections between, for example, doing a “research paper” in history and doing an “experiment” in chemistry. Research in general involves common processes: posing clear questions or hypotheses, crafting methods to gather relevant data, analyzing and evaluating different sources of information, and composing a final document. Instead of seeing these underlying commonalities, many students reinvent the task every time they do research in a new field.
- ▶ Professors’ advice on “writing the research report” often includes few tips on how to engage in the research process. While students appreciate professors’ clear guidelines for the research paper’s format, they tell us that they need examples and guidance on the processes of doing research.

“When I first got the research assignment, I knew I had to read lots of articles. I hadn’t written a lit review in a 400-level course. I had to learn quickly. But I’m used to that because in a lot of classes you’re left alone to figure it out by yourself.” — Economics major

WHERE STUDENTS WANT HELP

By the time they are ready to graduate, many students have learned new research strategies through trial and error in several different courses. They learned that the research process is recursive—looking forward to analysis, back to the research questions, then returning to the data/readings. But students tell us that this learning could have occurred more smoothly, and earlier, if they’d gotten experienced researchers’ help with three challenges posed by the research task:

- 1) constructing an inquiry’s focus;
- 2) making sense of the chaos of data or readings; and
- 3) composing the report of findings or the argument.

Challenge #2: Making sense of the data or readings

WHY STUDENTS HAVE PROBLEMS ANALYZING INFORMATION

- The crux of most students' problems with research is simple: the readings related to their research (e.g., professional journal articles, financial reports, theory-laden research reports) are difficult.
- Lack of critical attention and contextual understanding often leads students to summarize rather than analyze, to misuse quotations, and even to plagiarize.
- What you want—that they read critically, pick up links between theory and data, make links across texts—often requires knowledge and skills they don't readily have.

"Sifting through the readings was the hard part. When we start researching, we're just grabbing all the books we can find." — Art major

APPROACHES THAT HELP STUDENTS DEVELOP ANALYTIC SKILLS

- Be an expert for your student apprentices
Show students what you look for when you read journal articles or analyze information. Show them materials you have read; explain why you underline passages and write marginal notes, how you code and organize data.
- Encourage critical responses to reading or data
Require students to write critical responses to readings or data sets throughout the semester. These responses can take the form of critical summaries, abstracts, mini pro/con arguments, question lists, "tests" against personal experience, or theory-based evaluations. Responses can be exchanged with peers and discussed or handed in to you for your comments.

Here is an excerpt from a student's critical summary of a frequency distribution table:

33% of students surveyed decided to go to college to receive a better education and 36% decided to go in hopes of getting a better job. Speculation: Perhaps the percentages are higher because students surveyed were juniors & seniors; others had already been filtered out of the university system. Students with goals and plans prior to entering college seem to have a better chance of sticking through the required amount of time to graduate. Other possible contributing factors: What about ages of students? Marital status? Immigrant students on visas intent on securing a job? Socioeconomic level of parents?

- Compare / contrast perspectives
In *Engaging Ideas*, John C. Bean urges instructors to help students see that texts convey messages with specific purposes for particular audiences. You can accomplish this by comparing articles for different audiences or comparing articles with contrasting perspectives on the same subject. Have students read several articles on a topic and answer these questions for each one:
 - Before I read this text, the author assumed that I believed _____ .
 - After reading this text, the author wanted me to believe _____ .
 - The author was/was not successful in changing my views because . . .
- Help students to evaluate their readings
Inexperienced students sometimes attach equal weight to everything they read because "it was published." Offer guidance to help students evaluate readings: What do you know about the author's background? Do you know anything about his or her biases? When was the material published and in response to what other publications? Does the author define terms? Does the author support assertions? What evidence does the author use to test or support his or her hypothesis? How do this author's conclusions match the conclusions of other authors I've read?

"I wasn't sure what I should do when I was reading and the author was against what I was trying to say. I could either ignore it or refute it, but which was right?" — Psychology major

Challenge #3: Composing the report or argument

WHY STUDENTS HAVE PROBLEMS WHEN DRAFTING

Students don't know:

- What information or data to include and what to leave out
- When to quote and when to paraphrase
- How to weave information or data into their text
- What format to use

"A big problem is deciding what information to use and what not to use, if I can explain it and connect it with other information I want to use in my paper." — Finance major

WAYS TO HELP STUDENTS WHILE THEY DRAFT

- Give early feedback

Students tell us that they usually get extensive feedback from their teachers only after they've committed one or more serious errors, often when it's too late to correct them. Better: promote preventive research-process maintenance. Like a physician, encourage your students to have frequent check-ups: require them to submit a research prospectus, an annotated bibliography, critical summaries, an early draft, or sections of long reports for your feedback when it can be most effective.

- Point out connections with writing tasks in other fields

Connect the present task with writing tasks that students may have experienced in other fields. For example, the "literature review" is a *summary* of relevant research findings. An "executive summary" is in many ways an extended *abstract*.

- Do "rhetorical analysis"

Students often have trouble getting a sense of the overall shape of their report. A large part of this difficulty is being unclear about the rhetorical context—the stance they will assume, the purposes and audiences for the writing. Students can ask themselves these questions:

—What is the message I want to convey?

—What's the purpose of writing this report? What impact do I want to have on my readers?

—Who are my readers? What do they already know about my subject? What do they expect me to say?

—What stance do I assume? Should I analyze critically? Review a controversy? Analyze a controversy? Synthesize current thinking on an issue?

- Explain purposes for report structure and conventions

Students who write technical research reports in engineering, physical, and social sciences need to understand the purposes for the structure, content, and stylistic conventions of each section of the typical report. Using published articles, distinguish for students parts of the report and the specific kinds of information covered in each part.

"One TA told me I should paraphrase all the quotes. Then another TA told me I should use direct quotes instead. I was really confused."
—Chemistry major

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- Show how professionals use citations

Students often think that learning how to cite sources properly is the most important research skill—often because instructors provide more handouts on how to format citations than they do on how to analyze texts. Help students understand how citations function as parts of an argument by reviewing sample research articles or by explaining how you used quotations, paraphrases, summaries, and bibliographical citations in your own writing.

Capitalizing on your role as expert researcher

The research process is an invigorating process that can lead to discovery and new knowledge. However, unless you help your students move from their preconceived notions of research to a working knowledge of processes that constitute inquiry in your field, their research assignments will remain missed opportunities for new learning. By guiding your students as apprentice researchers and writers, you will help your students to gradually master the challenges of writing research projects.