

STUDY GUIDE

Knowing How

Researching and Writing Nonfiction 3–8



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In *Knowing How: Researching and Writing Nonfiction 3–8*, we acknowledge that researching is a complex process that should be driven by one’s curiosity and need to understand the world in which we live. This book attempts to demystify the process of researching and provides tools writers need to shape their research into written products that have engaging leads, effective transitions, strong conclusions, and voice. In addition, it strives to dispel the myth that in order to do well on standardized tests, students must put aside what they know about good writing.

The book is divided into two parts. Part One: Researching focuses on the research process, from selecting a research project to writing a first draft. Part Two: Revising and Assessing focuses on improving and evaluating student report writing.

We hope you’ll use this study guide as a vehicle for dialogue and an exchange of ideas. Three key components that will assist you are:

1. a short synopsis of each chapter;
2. open-ended questions for discussion;
3. interactive activities. Facilitators might use these activities in different ways. They could:
 - a. have participants try out these activities during workshops, share their responses, and talk about how they can incorporate some of these ideas into their instruction;
 - b. have participants complete the activities with students first and then share their thoughts about the processes they used for instruction and the students’ products.

Note: These activities are designed to be used with the ongoing curriculum and materials that exist in most classrooms.

In addition, we hope that facilitators will begin or end each workshop by reading aloud a nonfiction picture book that is appropriate in content and language for upper elementary and middle school students. We’ve included an extensive bibliography in Appendix A of *Knowing How* that might serve as a useful resource for this activity. Moreover, you

may want to encourage participants to share their favorite nonfiction picture books during the workshops or explore some of the new suggestions we've included throughout this guide.

Chapter 1: Getting There from Here

Synopsis

Like so many teachers, we are always trying to find ways to challenge students and to promote analytic thinking. Research projects seem to be a natural vehicle to developing a wide range of higher-order skills and strategies. In this chapter, we examine the ways in which we have traditionally approached the research process and report writing. We also highlight the underlying reasons for shifting from a traditional to an inquiry-based research approach.

Read-Aloud Possibilities

Martin, J. B. 1998. *Snowflake Bentley*. Boston: Houghton Mifflin.

Rubin, S. G. 2001. *The Yellow House: Vincent van Gogh & Paul Gauguin Side by Side*. New York: Harry N. Abrams.

Guiding the Discussion

1. What are your memories of researching and writing nonfiction in school? What were the roles of the teacher and students? How were your reports evaluated?
2. Which of the three myths we present in this chapter resonates most strongly for you? Explain.
3. How does each of us become more of a facilitator in guiding students to new learning opportunities?

Interactive Activity: Carousel Brainstorming

Directions: Using four pieces of butcher-block paper, write one of the following questions on each sheet:

1. Why do you assign research projects? What outcomes, goals, objectives do you have for your students and for yourself?
2. You are researching volcanoes. What statements and research questions could you generate before you go off to the library? Put an "F" beside each statement you think is a fact.

3. What are some weaknesses you've noticed in the reports your students have written over the years?
4. What questions do you have about researching and nonfiction writing?

Tack the sheets around the room. Divide participants into four groups and give each group a different colored magic marker. Send each group to a different question. Give participants a few minutes to brainstorm and record their answers on the sheets. Signal that it's time to move to the next sheet (ring a bell or chime, flick off the lights, or blow a train whistle). All participants move one sheet to the left, taking their markers with them. At the new sheet, they read the responses that were generated and try to record additional responses. Continue until all groups have visited each sheet. To extend this activity, participants may return to each sheet, read all responses and star the one(s) they like best. This enables them to see all the ideas generated by the group. (You may want to save the responses and revisit them during later workshops.)

Chapter 2: Journeying from Topic to Research Question

Synopsis

Honing in on a research question or thesis statement is an essential but often challenging part of researching. In this chapter, we walk readers through the process we use to help students select topics and transition from these topics to substantive research questions that are meaningful for them. We also explain how to design personal data charts.

Read-Aloud Possibilities

McMillan, B. 2001. *Days of the Ducklings*. Boston: Houghton Mifflin.
Walker, A. 2002. *Langston Hughes: American Poet*. New York: HarperCollins.

Guiding the Discussion

1. Think about the research you've done (e.g., buying a microwave; planning a wedding, party, or vacation). Brainstorm the steps in your process. What was the driving question that initiated your research?

2. Why is background reading necessary to develop an inquiry-based question?
3. What do you do to guide students who are having difficulty coming up with a good question?

Interactive Activity: “I Wonder” Statements

Have participants write “I wonder” statements as a way of brainstorming areas for research. Give them a few examples as models (see below). They might write them in small groups or individually, but it is important that ideas are shared and discussed so they might be stepping-stones to other topics.

I wonder how big the universe is.

I wonder if there are any similarities between the jobs of engineers and architects.

I wonder why cobras don’t live in our area.

I wonder why Leonardo da Vinci became such a great artist in so many areas.

I wonder why September 11 happened.

I wonder how a clock works.

I wonder if the European Union will really bond all its member countries together.

I wonder when man will be able to travel and settle other planets.

Next, take the “big,” open-ended “I wonder” statements and create smaller, subquestions for each. For example, for “I wonder when man will be able to travel and settle other planets” some of the subquestions might be, “What are the other planets? How close are the planets to us? What is the surface of each planet like? What has NASA done already to prepare us for such travel?” Discuss what makes some of these questions better research questions than others.

Chapter 3: Transforming Their Ideas into My Ideas

Synopsis

Organization underlies all research and report writing. By setting up a logical system for data collection, the researcher has laid the foundation for the written report. We show how data charts can be structured around a variety of expository text structures and provide models of how students organize and record information to facilitate their writing.

Read-Aloud Possibilities

- Markle, S. 2001. *Outside and Inside Rats and Mice*. New York: Atheneum Books.
- Rockwell, A. 2002. *They Called Her Molly Pitcher*. New York: Alfred A. Knopf.

Guiding the Discussion

1. Why is it important for students to be aware of different expository text structures? How can we build this awareness?
2. How can we help students organize their data charts before they begin to draft their reports?
3. On pages 42–44 technology is used to teach note-taking skills. How else can technology be used for data collection and organization?

Interactive Activity: Generating Questions and Designing Data Charts

In small groups, generate a list of “big” questions. You might want to use some of the “I wonder” statements from the last workshop or craft new ones. In a large group share and record your questions. Using the expository text structures presented in this chapter, look for similarities in the questions and categorize them by text structure. Group participants with like text structures and have each individual design their own data chart within their group, so they can help each other with this task.

Chapter 4: What’s the Connection? Transitions and Organizational Structures

Synopsis

So many of us have read a paper with one disjointed fact after another. In this chapter, we present various strategies for writers to use to connect information, and to bring the paper together into a cohesive whole.

Read-Aloud Possibilities

- Powzyk, J. A. 1998. *In Search of Lemurs: My Days and Nights in a Madagascar Rain Forest*. Washington, DC: National Geographic Society.

St. George, J. 2002. *So You Want to Be an Inventor?* New York: Philomel Books.

Guiding the Discussion

1. Which of the transition strategies in this chapter could be used in both fiction and nonfiction writing? Explain your rationale.
2. How can we elicit the help of other adults (instructional support staff, parents, volunteers, and so forth) to guide students through this process of exploring transitions?
3. Discuss the role of parents during the writing and revision part of the research process. How can you communicate these expectations to parents? You might want to draft a letter to send home.

Interactive Activity: Cooperative Persuasive Essays

Note: This activity was adapted from *Going Bohemian: Activities that Engage Adolescents in the Art of Writing Well* (Baines and Kunkel, eds. 2000).

On an overhead transparency or butcher-block paper, write the following statements:

- Persuade a friend to let you puppy-sit for the weekend.
- Explain why everyone should try skydiving.
- Convince someone to take you on a cruise.

Divide participants into groups of three, assigning one statement to each person in each group. The goal of this activity is for participants to work together to compose one well-written persuasive essay per group. Each writer composes only two sentences and must adhere to the following guidelines:

1. The first person writes two sentences persuading a friend to let him puppy-sit for the weekend and passes the paper to the second person.
2. The second person reads what has been written. He writes one sentence that transitions from what the first person has written into his explanation of why everyone should try skydiving. He writes one more sentence about skydiving and then passes the paper to the third person.
3. The third person repeats this same procedure, making a smooth transition from skydiving to taking a cruise. He uses his second sentence to reinforce his reasons for going on the cruise and brings the essay to a logical closure.

Share the essays and discuss what types of transitions were used. Talk about what you were thinking as you strategized your move from one idea to the next? You might want to refer to strategies in Chapter 4 either before or after writing the essays.

Chapter 5: It Started How? Leads

Synopsis

I am going to tell you . . . my report is about . . . my name is . . . and on it goes. Readers need to be lured into a paper—enticed to begin reading. Our students may know this, but they may not have the tools they need to craft enticing leads. In addition to providing concrete examples of lead strategies, in this chapter, as in Chapters 4 and 6, we offer teacher tips to make them even more effective.

Read-Aloud Possibilities

Mitton, J. 2001. *Kingdom of the Sun: A Book of the Planets*. Washington, DC: National Geographic Society.

Wooldridge, C. N. 2001. *When Esther Morris Headed West: Women, Wyoming, and the Right to Vote*. New York: Holiday House.

Guiding the Discussion

1. When faced with the task of writing a lead sentence or paragraph, what do you do as a writer?
2. Before reading this chapter, how did you teach students to write and revise leads? Now that you've read the chapter, will your instruction change? Explain.
3. How could you acquire your own collection of leads to use as models?

Interactive Activity: Creating New Strategies for Leads

Read over Lynette's book report (pages 156–157 of *Knowing How*). Suppose she began her book report on penguins this way:

Splash! Slurp! Gurgle! Four short-legged black and white aquatic birds hunt for food along a snow-covered patch of ice.

In this workshop, we invite you to go through the same process we did to create lead strategies. We don't think this lead corresponds to any strategies that we identified in this chapter. Here's an opportunity for you to make up a new lead strategy that can be added to those in this chapter. In small groups, analyze Lynette's new lead. What do you think she did to make it effective? Give this new strategy a name. Be able to explain how you would describe this strategy to your students. Go back to Nick's panda report on page 3. Use your new strategy to revise his original lead. Next, read Kathryn's science research report on how the universe began (pages 157–159). See if you can revise her lead using the strategy you just created. When ready, come together in a large group and share your ideas.

Chapter 6: Is It Done Yet? Conclusions

Synopsis

A writer produces weak conclusions for many reasons: she runs out of ideas, is tired, has met the required number of words or pages in the assignment, and so forth. Often we find "The End" or "I hope you learned a lot about . . ." tacked on to the end of papers. How can we move writers beyond these safe, trite endings? In this chapter, we share strategies that reenergize writers as they bring closure to their papers.

Read-Aloud Possibilities

Cohen, A. L. 2002. *Abraham Lincoln*. New York: Scholastic Press.

Krensky, S. 2001. *Shooting for the Moon: The Amazing Life and Times of Annie Oakley*. New York: Farrar, Straus and Giroux.

Guiding the Discussion

1. What obstacles have you faced when teaching students how to write effective conclusions?
2. What would you do while conferencing with a student who is struggling with conclusions? What advice would you give? What resources could you provide?
3. This chapter also touches upon presentations. Would you agree that family members should be involved in preparing presentations? If so, how can you constructively involve them? If not, how would you explain this decision to interested family members?

Interactive Activity: Writing Memorable Conclusions

Read aloud the following conclusion:

Without the leadership and inspiration that Patrick Henry, George Washington, and Sam Adams gave to the cause of freedom, the American Revolution would not have happened. If you want to know more about what each man did, you have only to pick up any book about the Revolutionary War.

In small groups or on your own, select two or three strategies that could be used to make this conclusion more memorable. Rewrite the conclusion. (You might want to reread “Checking In with Nick,” pages 112–113 of *Knowing How*, before you begin.) Once done, gather together in a large group and share the revised conclusions aloud. Have listeners try to identify and name the strategies that were used.

Chapter 7: Did We Succeed? Assessment

Synopsis

Whether we like it, high-stake testing has had a major impact on curriculum throughout the United States. Too often, however, writing becomes formulaic in an attempt to score well on these tests. In this chapter, we examine rubrics from different states, share assessment instruments that we and our students have designed, and propose that writers who know how to use effective leads, transitions, and conclusions will score well without losing their individuality or creativity.

Read-Aloud Possibilities

Firganga, K. 2001. *Krakatoa: History's Loudest Volcano*. New York: Rosen Publishing Group.

Lauber, P. 1998. *The True-or-False Book of Cats*. Washington, DC: National Geographic Society.

Guiding the Discussion

1. How do you assess reports and nonfiction writing?
2. How does your assessment process compare and contrast with ideas in this chapter?
3. How could you adapt one of the assessment tools in this chapter to meet your needs and the needs of your students?

Interactive Activity: Assessing Student Reports

Using assessment tools from your school district or those in Figure 7.4 and Figure 7.5 on pages 129–130, analyze student reports that you’ve collected. After analyzing the reports, prepare some “Teaching Suggestions” for them. You might want to use the “Teaching Suggestions” we offered for Nick’s report (page 142) as a model.

Bringing Closure

Select one of the following quotes to discuss:

The world of learning is so broad, and the human soul is so limited in power! We reach forth and strain every nerve, but we seize only a bit of the curtain that hides the infinite from us.

—Maria Mitchell

Reading furnishes the mind only with materials of knowledge; it is thinking that makes what we read ours.

—John Locke

Guiding the Discussion

1. How does the quote connect to the book and to your work with research and nonfiction writing?
2. With this quote in mind, what are your next steps? Brainstorm as many ideas as possible and then go back and prioritize them.