

The background of the cover is an abstract composition of various colors and textures. It features large, irregular shapes in shades of green, yellow, orange, and blue, some with a painterly or marbled appearance. The colors blend and overlap, creating a dynamic and visually rich field.

The Dynamics of *Writing Instruction*

*A Structured Process Approach
for Middle and High School*

Peter Smagorinsky
Larry R. Johannessen
Elizabeth A. Kahn
Thomas M. McCann



DEDICATED TO TEACHERS™

Foreword by Louann Reid

The Dynamics of *Writing Instruction*

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Offices and agents throughout the world

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Library of Congress Cataloging-in-Publication Data

The dynamics of writing instruction : a structured process approach for middle and high school / Peter Smagorinsky ... [et al].

p. cm.

Includes bibliographical references and index.

ISBN-13: 978-0-325-01193-6

ISBN-10: 0-325-01193-1

1. English language—Composition and exercises—Study and teaching (Middle school). 2. English language—Composition and exercises—Study and teaching (Secondary). I. Smagorinsky, Peter.

LB1631.D97 2010

808'.0420712—dc22

2010018759

Editor: Lisa Luedeke

Development editor: Alan Huisman

Production: Vicki Kasabian

Interior and cover designs: Shawn Girsberger

Cover image: © iStockphoto.com/Umbris

Typesetter: Shawn Girsberger

Manufacturing: Steve Bernier

Printed in the United States of America on acid-free paper

14 13 12 11 10 VP 1 2 3 4 5

To George Hillocks, Jr.





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Foreword

Now, use one of the highlighters for each sentence in your paragraph,” the student teacher directed the eighth graders, as she distributed colored pens.

I watched as her students dutifully filled the remaining class time highlighting topic sentences in green, supporting reasons in yellow, and details in red. When the bell rang, they stuffed their vividly colored papers into their writing portfolios and went off to math or band or PE, not noticeably affected by these forty-five minutes of writing instruction.

Later, I asked the cooperating teacher and the student teacher to tell me about the activity and its purposes. It turned out they had been told in a district inservice that students would learn to organize and develop paragraphs using this method. The teachers still believed this, even though students had been taught the same activity annually, starting in fourth grade, but were clearly still struggling. The teachers also assured me that they knew that this was not the only way to organize a paragraph, and that once students mastered this method of organization, they would be encouraged to try other methods.

You may recognize their dilemma. With all the possible options of content, structure, and style, writing and teaching writing can seem chaotic. So many teachers look for an effective way to make writing instruction clear

and concrete. With the best of intentions they turn to teaching a formula. Although students presumably can abandon this prescribed structure later, they rarely do once they have successfully learned it. This classroom observation reminded me of the high school writing class I had taught years earlier, where I saw the effects of this teaching dilemma firsthand.

Leaning over Kelly's shoulder as she faced the computer, I asked, "Do you need a paragraph there to show a new idea?"

"Oh no," she replied. "I don't have five sentences yet."

Honest. Kelly had learned some *rules* very well, but as a junior she was in a class for students who had not successfully mastered academic writing.

I wondered what other ideas about writing Kelly and her classmates held. I put several prompts on the board, including "What goes into a paragraph?" and "How long should it be?" Students knew that a paragraph should include the "proper words" and "a thesis, sentences, [and] details." Some of them knew that paragraphs "should be long enough for you to explain your point and describe it in full detail," while others contended that there was an acceptable length ranging from "more than one sentence" to "at least five lines" or five sentences. Those in the paragraphing-by-the-numbers camp all knew there was a right number, even though they disagreed on what it was.

These juniors and seniors knew the "rules." Yet, that knowledge had not made them writers—in their eyes or in the eyes of their teachers. For every writing task, they clung to the one formula they had learned. When the formula did not work, they questioned themselves rather than the formula. What a loss of confidence and potential!

It doesn't have to be that way. *The Dynamics of Writing Instruction* comes at just the right time for teachers who are looking for alternative approaches to writing instruction, ones that offer flexibility and possibilities rather than formulas and rules. A structured process approach does just that.

Peter, Larry, Betsy, and Tom—all experienced teachers and leaders in the profession—explain that such an approach "foregrounds process-oriented principles but also stresses the structured way in which these principles are introduced" (20). Following their guidance, teachers can readily implement this sensible, research-based approach to teaching writing. But, excellent guides that these authors are, they also stress flexibility. They most emphatically do not advocate slavishly following steps or stages or processes—theirs or anyone else's—in either writing or teaching. Instead, they offer "a blueprint of possibilities" (182) for designing a curriculum and teaching students how to write various kinds of narratives, essays, and reports.

The possibilities are both specific and adaptable. In the first chapter, teachers are invited to explore beliefs about teaching writing through a set of scenarios, turning what could be abstract into specific visions of students and

learning. In Part 1, the authors also articulate the principles of a structured process approach to teaching writing. Part 2, “Theory in Practice,” takes you into classrooms. You see teachers structuring curricula for six different writing tasks in which students learn the demands and expectations necessary to succeed with various kinds of writing. Each chapter also includes ways to teach language in the context of writing rather than in isolation. Part 3, “The Bigger Picture,” shows how teachers might develop curricula that integrate a structured process approach.

The authors acknowledge that we face significant challenges if we are to teach in ways that help students fulfill their potential as writers. Formulaic writing and “teacher-and-text-oriented instruction” (xix) prevail in the era of high-stakes tests. A prime example of this situation was offered by a middle school principal in Illinois. Commenting on the pressure of the state tests and too much sameness in students’ writing, Tracy Dell’Angela told the *Chicago Tribune*, “Even my thank-you notes read like little ISAT tests. ‘I really liked having lunch with you. Here are three reasons why.’”

But I share the authors’ optimism that change is possible. They ask, “Will yet another book about teaching writing make a difference?” (xvii). Yes, especially if you are part of the audience of “teachers who are dissatisfied with teaching five-paragraph themes, traditional grammar lessons, and other form-driven writing pedagogies” (xix). We will, of course, need to do the work, but the authors show us what that work looks like in the hands of teachers in actual classrooms.

For each assignment, the authors provide a task analysis, materials, and a possible sequence to support instruction, assignment sheets, and student responses to the tasks. I believe that teachers using this book can transform writing instruction because *The Dynamics of Writing Instruction* so thoroughly follows the advice of Donald Graves (1983): “Good teachers show what they mean instead of telling” (277). We urge student writers to “show not tell,” but how often do we see a book written for us that *shows* us effective approaches to the teaching of writing?

I have relied on the publications of these four authors, singly and together, for most of my teaching career. They have repeatedly shown me new possibilities for teaching and learning, and I trust them. If you are ready to help students realize their full potential as writers, this is the book that will make a difference. But don’t rely on my telling you so; let the authors show you how a structured process approach can transform your writing instruction.

Louann Reid
Professor of English
Colorado State University



Acknowledgments

We have many people to thank for helping this book come into being.

As our dedication suggests, we owe much to George Hillocks, our graduate school mentor, for the ideas that we elaborate in this book. The title we have chosen, *The Dynamics of Writing Instruction*, deliberately echoes the title of *The Dynamics of English Instruction, Grades 7–12* (Hillocks, McCabe, and McCampbell 1971), the book that is the foundation for much of what we know about how to teach. The fact that many decades after meeting in our graduate programs at the University of Chicago we remain close in thinking and friendship is a tribute to the community—both social and intellectual—that George provided during our MAT and PhD programs in Hyde Park.

At Heinemann, Lisa Luedeke provided leadership and support as she helped us shape the manuscript. Our friend Kristen Turner of Fordham University provided a thorough critique of a late draft that helped give the book its final form. We thank Angela Dean, who adapted the activities in Chapter 6, test-drove them in her high school classes, and provided examples of how students responded to them.

We are grateful to the school principals who invited us into their schools to work with their students: Jane Bailey, Ci)ndy Gotha, Beth Gregor, Jim Pluskota, and Diana Smith. We appreciate the teachers who worked with

us to plan lessons for their students, helping us find ways to differentiate and engage all learners: Mavis Barkley, Caroline Brandt, Rebecca D'Angelo, Marianne Zerull Fried, Nancy Galas, Kelly Golubiweski, Lisa Mariani, Patricia Moll, Carrie Noland, Brandi Roderique, Laura Ryan, and Mary Kate Sennett.

Several of our colleagues have provided reliable critical assessments of our attempts to construct inquiry-based lessons to teach writing. We appreciate the insights offered by Cathy Baker, Charlotte Kulla, and Charles Sprandel. Our colleagues Connie Webber and Maria Martinez-Valiukenas helped us understand how to design lessons that accommodate the needs of English language learners. In addition, our colleagues Joyce Powell and Lisa Smith offered insight into ways to shape instruction to meet the needs of students with specific learning challenges.

Our friend Joe Flanagan evaluated how specific learning activities blended with the other language arts activities in his classes. We appreciate the steady support of our friends Ellen S. Walsh and Colleen Braun, who helped us prepare teaching materials and ready the manuscript for publication.

We cannot close without saying how much we will miss Larry Johannessen. Larry passed away at age sixty-one just as we were preparing the final version of the manuscript. Of course, his sections were ready to go; he was as dependable a person as you'll ever meet. The extended profile of Larry in the Author Biographies section covers his military and academic careers, but the list of his accomplishments cannot convey the impact Larry had on the people around him. We loved him dearly; Betsy Kahn loved him so much she was married to him for twenty-seven years. Many who spoke to us in the weeks following his death remarked about his extraordinary generosity, a trait that earned him near universal respect. Larry was a gifted teacher and writer who never hesitated to share what he had or what he knew with people who might benefit. Although RateMyProfessors.com may not provide the most authoritative account of a teacher's impact, we find the following comment worth repeating, because we have heard so many other people say something similar: "He was the best professor I have ever had! After my father I would consider him the greatest man I have ever met! His class actually changed my perspective on life!" We couldn't agree more. We hope that this, his last publication, lives up to the standard of integrity that Larry provided for us all.



Introduction

In spite of the wealth of attention writing instruction received in the final decades of the twentieth century, the teaching of writing in middle and high schools remains, at best, uneven. National Writing Project sites have conducted countless summer institutes, and new books about teaching writing appear routinely in publishers' catalogues. Yet assessments continue to find that students' writing is less accomplished than teachers hope. Undoubtedly, the assessments themselves are not what they ought to be (Hillocks 2002). But even those with relatively good reputations, such as the National Assessment of Educational Progress, find that students in the United States are not writing as well as many people expect them to. What's going on here? And will yet another book about teaching writing make a difference?

A number of issues contribute distinctly to the problem and at the same time reinforce one another (see Smagorinsky 2010):

- Educators' experiences when they were students for the most part consisted of sitting and listening (well, sitting). Their teachers did most of the talking, and as students they were then tested on the content of the lectures or "discussions." This cycle has deep roots in Indo-European culture; Cole (2005) found evidence of a Sumerian classroom from 2,000 BCE in which the stone seats face the front, where the teacher

presumably stood and talked. In recent times, research has identified *first-grade students* already so deeply acculturated to authoritarian teaching that they don't know how to respond when asked to write in open-ended ways (Smagorinsky 1999).

- In the typical large state university, teacher candidates take three years of general education and content-area courses, followed by a semester of education courses that presumably will undo sixteen-plus years of authoritarian instruction (Smagorinsky 2010).
- As part of their content-area coursework, teacher candidates take between eight and fifteen courses in departments of English. In the large state universities where most teachers get certified, this instruction often centers more on the professor's preferred approach to literary criticism than on writing pedagogy (Addington 2001; Marshall and Smith 1997). Without a strong background in writing pedagogy, teacher candidates often revert to the formulaic writing that characterized their own education and that remains widely practiced by their colleagues who are already teaching (Tremmel 2001).
- During their senior year, teacher candidates typically acquire field experience in the sorts of schools in which they themselves were educated: those stressing control-oriented pedagogies that undermine the student-centered values typically emphasized in teacher education programs.
- Teacher candidates are hired by schools whose administrators and faculty view authoritarian teaching as the norm. Because these values determine the outcome of their annual reviews, teachers often gravitate to authoritarian instruction, perpetuating the cycle (Zeichner and Tabachnik 1981).
- External mandates in the form of district, state, and national standards and exams reinforce the notion that authoritarian instruction is the natural state of teaching and learning and that "teaching to the test" is the best way to produce results that make administrators and taxpayers happy.

One principal who was interviewing candidates for a teaching position made a typical remark after a newly certified applicant critiqued traditional grammar instruction and described alternatives: "Well now, I know that they tell you that stuff up there. But y'all are *down here* now." "Down here" is where the definition of quality teaching is established when it comes to hiring and retention; little value is given to the ideas from "up there" in the rarified air of the university.

The cycle of being apprenticed to teacher-and-text-oriented instruction for roughly fifteen years, being briefly exposed to alternatives, and then returning to schools where authoritarian values determine what counts as effective teaching has proven very difficult to break. Although Applebee (1974) identifies other traditions that have infiltrated schools, generally under the umbrella of “student-centered” approaches, the most prevalent form of instruction continues to locate authority in teachers and texts rather than in students. This approach to teaching has been roundly critiqued in colleges of education (Applebee 1993, 1996; Cuban 1993; and many others), by the relatively small percentage of teachers who are members of the National Council of Teachers of English and other professional organizations, and by legions of students who regard school as a prison. Yet it remains the norm, no doubt for reasons that follow from the cycle of authoritarian schooling we have outlined.

Call us crazy, but we have written this book in the hope that it will offer alternatives to teachers who are dissatisfied with teaching five-paragraph themes, traditional grammar lessons, and other form-driven writing pedagogies. Frankly, we don’t expect to convert schools wholesale to our way of thinking with this effort. We do hope, however, to add to the body of work that details ways to teach writing that attend to learning processes through task-related student activity.

This volume falls within a teaching tradition that is relatively new to the Heinemann catalogue. This approach—which we refer to as a *structured process*—was developed by George Hillocks during his years as a middle school English teacher in Euclid, Ohio, during the 1960s (Hillocks 2005). Through this method he and his colleagues taught with great effectiveness in Euclid schools, under the auspices of the Project English Demonstration Center (see Hillocks et al. 1971; Hillocks and McCampbell 1965). In addition to this pedagogical success, Hillocks and his students have researched this method and found it highly effective (e.g., Hillocks et al. 1983; Lee 1993; Smagorinsky 1991a; Smith 1989). In a more comprehensive research review, Hillocks (1986a) found that over a twenty-year period, structured process writing instruction provided greater gains for student writers than did any other method of teaching writing.

Briefly, the Hillocksian tradition is founded on the idea that kids learn well when actively engaged with things that interest them. Learning begins with activity rather than with the abstract presentations of information that typify much school instruction. Teachers design and sequence activities that allow students to move through increasingly challenging problems of the same type. Their learning is highly social, involving continual talk with one another as they learn procedures and strategies for undertaking tasks.

Although the teacher might identify the task (e.g., writing an argument) and design activities that enable students to take on increasingly complex problems (e.g., moving from arguing which compact disc cover is most appealing to arguing which social group in school has the greatest influence to arguing whether or not technology contributes to or detracts from human progress), most of the talking and doing comes from the students.

We should say up front that we see merit in other ways of teaching writing. We do not argue that we have discovered the one best way to teach writing; rather, we want to stimulate your thinking by reviewing in detail one way we all found successful in a variety of high schools. If you find that this method works with your students, we encourage you to think about how to apply the principles to other writing demands in your curriculum.

How This Book Is Organized

We begin inductively. In the first chapter, we ask you to think about possible ways of teaching writing in middle and high schools. Then we suggest that you think about your assumptions about teaching writing, where they came from, and what types of instruction they produce. After you have considered our scenarios depicting a range of approaches to teaching writing, we ask you to position your own beliefs in relation to them and write a scenario that portrays your own approach to writing instruction. In the second chapter we outline the structured process approach to teaching writing, a method that follows from what we learned from working with Hillocks and how we applied those principles in our own teaching.

The second part of the book consists of six chapters that apply this instructional approach to types of writing commonly taught in middle and secondary schools: personal narratives, fictional narratives, essays of argumentation, comparison and contrast essays, extended definition essays, and research reports. In these chapters we outline what a structured process approach looks like in a classroom and explain our thinking about how we designed the activities.

The final part of the book, Chapter 9, outlines a comprehensive writing curriculum in which teachers might use structured process instruction to teach students a range of processes for engaging in different types of tasks in relation to different areas of the curriculum. This curriculum outline suggests one possible way to think about writing instruction in the long and broad term, not a rigid scope and sequence unresponsive to local conditions.

Our approach is designed to work in dialogue with your teaching, first through the consideration of teaching possibilities and ultimately through our effort to illustrate a type of design process that we apply to commonly taught writing tasks, and that we hope teachers can then adapt to other types

of writing. Ultimately, readers are invited to create their own instruction in response to the challenges that they find in their schools and districts, in the needs of their students, and in the demands of writing opportunities that help students grow into more reflective thinkers, writers, and people.



CHAPTER

Teaching Argumentation Essays

In his study of state writing assessments, Hillocks (2002) finds that teachers often feel great pressure to increase students' scores. He reports that some teachers encourage their students to fabricate the evidence they offer as support for their generalizations when they know little about the topic specified in the prompt. To a certain extent we understand: these teachers are no doubt skeptical about the value of the state assessments. Because the writing only matters in the context of the assessment, they distinguish students' writing for the test from other occasions when they would expect the writer to make an honest effort to advance the reader's understanding of the topic.

Hillocks finds that the standard for judging writing on state assessments is expressed in two ways: the rubric that guides the raters and the examples the state offers to illustrate the elements in the rubric. He also notes that in many states the scoring rubric and the illustrative examples are geared to the five-paragraph theme (Hillocks 2005). Johnson et al. (2003) identify the pressures and historical lineage that lead to the five-paragraph theme's stubborn presence in schools. In much five-paragraph-theme instruction, proficiency is achieved by erecting an organizational skeleton and fleshing it out with verbiage—often, in Hillocks' view, “blether” rather than ideas of

any value (2005, 80). Hillocks argues that the emphasis on form undervalues the importance of teaching the thinking processes that help writers generate reasonable and substantive texts.

Argument is an element in various kinds of writing: reports, exposition, persuasion, analysis, thesis papers, and so forth. Influenced by Toulmin (1958) and Toulmin et al. (1984), we define *argument* as thinking presented by way of a claim, grounds (i.e., data, examples, or evidence), warrants, backing, rebuttal, and response. In order to produce mature arguments, a writer needs to be able to think clearly and write logically according to the social conventions for persuading others of an opinion. Even so, students as young as fourth graders have the knowledge to be able to make argumentative points (McCann 1989).

Task Analysis

The instructional sequence in this chapter teaches students procedures that will enable them to construct arguments in both current and future writing. It begins with relatively simple arguments and moves toward more complex ones that require students to build on their initial efforts and take into account opposing views. The lessons depicted in this chapter were enacted by three different teachers who all followed a common curriculum.

Ms. Fischer, the teacher in whose classroom the sequence is introduced, begins her lesson planning early in the school year, knowing that by the spring, her fifth graders should be able to write relatively mature essays. Envisioning the texts she wants students to be able to produce, she recognizes that they will need to be able to link units of thought in a coherent and organized way and are going to need help doing so. Approximately one quarter of the students come from low-income homes. Eight are English language learners. Ms. Fischer's instruction has to bridge the many ways of thinking and speaking represented in the class.

Ms. Fischer's goal for the initial lesson, which will introduce students to writing arguments, is for all students to be able to:

- Examine a body of information and draw logical conclusions about trends and patterns.
- Write a coherent and logical paragraph that expresses a claim and supports the claim by citing relevant data and interpreting this data.

Ms. Fischer will also use these two components of her goal as the evaluation criteria when she provides feedback on the students' compositions.

Ms. Fischer gauges her learners' readiness for the lessons by assessing the writing they have done for her so far this year and by talking with their fourth-grade teachers. The students have done little persuasive writing; their writing instruction through fourth grade has focused on relating personal experiences and gathering and summarizing information, types of writing often stressed in early primary school (Graves 1989, 2003). Ms. Fischer therefore assumes that while students may often argue, they have little formal knowledge of argument.

Ms. Fischer also designs specific learning activities that will help her students learn how to make claims, support claims with credible grounds, warrant the evidence, and anticipate and rebut opposing points of view. She is guided by two questions: *What kind of problem will the fifth graders care about? What kind of data will support their thinking about the problem?*

She also wants the activities to engage students in thinking processes and purposeful interaction. She wants students to gather data and use it as the basis for making claims. But since she *doesn't* want gathering data to be time-consuming or cumbersome, she needs to make the information easily accessible, in terms of both acquiring it and making sense of it. She decides the students' own beliefs comprise a good, convenient, accessible, and comprehensible data set and devises a way to elicit those beliefs and make them readily available using the following materials:

- Plain yellow three-by-three-inch sticky notes.
- Fluorescent three-by-three-inch sticky notes.
- Eighteen-by-twenty-four-inch chart paper, each sheet labeled with a category: Music/Dance, Shopping, Sports, Socializing, Time with Family, TV/Movies, Computers and Video Games, Reading, and Gardening.

Stage 1. Gateway Activity: Learning Procedures for Making Evidence-Based Claims

Ms. Fischer tells her students, "I want to get to know all of you as quickly as possible. I know that I don't have time to go around the room and interview everyone, so I have figured out a method to get a basic sense of who you are. I especially want to know about the activities you find the most fun or engrossing." She then models the process by reviewing some of her many interests, distinguishing between activities she finds pleasant and nice and those she finds totally engrossing (e.g., watching her favorite programs on

television or walking her Maltese dog are pleasant activities, but reading a good book, playing tennis, or talking to an old friend on the phone can be totally engrossing).

EPISODE 1.2

Ms. Fischer then distributes the sticky note pads and says: “On plain yellow sticky notes, briefly describe activities that interest you, one idea per note. On the brightly colored sticky notes, describe activities you find totally engrossing—experiences in which you become so deeply involved that you lose all track of time.” After a few minutes, groups of students talk about the things they like to do. After ten more minutes, most desks are filled with sticky notes.

EPISODE 1.3

Ms. Fischer asks the students to stop writing and collects the unused sticky pads. Students, at their desks, organize their sticky notes into categories according to the labels at the top of chart paper posted around the room: Music/Dance, Shopping, Sports, Socializing, Time with Family, TV/Movies, Computers and Video Games, Reading, and Gardening. Then, group by group, they stick their notes under the appropriate categories on the chart paper (see the photos in Figures 5-1, 5-2, and 5-3). This activity takes approximately fifteen minutes.

Figure 5-1.
Students
Using Sticky
Notes to
Collect Data





Figure 5-2.
Student
Tallying
Data About
Students'
Interests



Figure 5-3.
Student
Comparing
Information
About
Students'
Interests

EPISODE 1.4

Ms. Fischer asks, “What do fifth graders especially enjoy doing?” She emphasizes they must move beyond what they *personally* enjoy and consider the patterns revealed on the chart paper.

Ms. Fischer: Based on what you see around the room [on the chart paper], what would you say fifth graders especially like to do?

Bethany: Students really like sports.

Ms. Fischer: Why would you say that?

Bethany: Look at all of the sticky notes.

Ms. Fischer: What do you mean?

Bethany: There are a lot of sticky notes on the sheet that says Sports.

Ms. Fischer: So what?

Carson: There are probably more there than anywhere else.

Ms. Fischer: So you would say that sports is the highest-ranking choice?

Carson: That’s right.

Ms. Fischer: Then what would you say that students are far less interested in doing?

Katrina: They don’t really like gardening.

Ms. Fischer: How do you know?

Katrina: There are only four sticky notes there.

Ms. Fischer: So what does that mean?

Katrina: If it was popular, there would be a lot of notes.

The students count the sticky notes under each category and determine the total number overall. These numerical data are additional information on which to base their judgments. Class members continue to identify the most popular and least popular activities based on the data.

Ms. Fischer: How do you know that the fifth graders especially like sports?

Araceli: Look at all of the sticky notes.

Ms. Fischer: What do you mean?

Araceli: There are like a million notes under Sports.

Ms. Fischer: A million? How many, exactly?

Freddy: There were eighty-eight votes.

Ms. Fischer: Since there were four hundred total votes, we calculated that to be 22 percent. What does that show?

Stephania: That 22 percent of our class likes sports.

Ms. Fischer: Is that true? Let's see. How many of you like sports? [*All hands go up.*] Look at that. Everyone likes sports: that's 100 percent. So you can't say that only 22 percent of the class likes sports. What does that number mean?

Freddy: That 22 percent of all the votes were for sports.

Ms. Fischer: That sounds more accurate—that 22 percent of all of our votes went on the big sheet of paper labeled Sports. But that doesn't sound like a lot.

Colleen: Yeah, but compared to gardening or reading, it really is a lot.

Ms. Fischer: So you are saying that while the 22 percent might seem small, it is really the largest percentage of our votes. Is that right?

Colleen: You got it.

By guiding their thinking, Ms. Fischer helps the students look beneath the surface of their initial impressions, taking them through a process of warranting claims and data—that is, explaining why a specific example serves as evidence of a claim.

Ms. Fischer decides to make the process of warranting explicit so that students will use it when they produce their arguments. She develops the worksheet in Figure 5–4 to help students focus deliberately on the development of warrants to tie together their claims and data.

EPISODE 1.5

Ms. Fischer next asks the students to write a paragraph stating a conclusion based on their interpretation of the data and supporting this conclusion with the relevant information. Before they begin, she thinks out loud as she composes a sample paragraph (on a projected transparency) in which she transforms data about teachers into evidence. Here is what she says as she writes:

EPISODE 1.6

Ms. Fischer: I talked recently to all of the teachers at our school about their plans for the weekend. I discovered that many of the teachers like gardening. You might wonder how I figured this out. Here is how I know.

Figure 5–4. Warranting Evidence

A *warrant* is a statement that explains why a particular *example* provides evidence that supports a particular *claim*. Often, a warrant is introduced by words that mean the same thing as *because*. These words and phrases include:

due to	owing to
in light of	since
in that	through
in view of the fact that	whereas
inasmuch as	

Let's say, for instance, that you make the following claim:

Fifth graders like sports more than any other activity.

You then back up this claim with the following data:

A survey showed that 22 percent of all students at Conrad Elementary School identify sports as their favorite activity.

Because 22 percent appears to be a small percentage of students, you need to explain *why* the data provide evidence for the claim, in the form of a *warrant*. The following warrant explains why the example supports the claim:

Due to the fact that 22 percent was the highest percentage named for any activity, it is therefore the students' favorite.

Here are a few more illustrations of a claim, data, and supporting warrant:

Claim: Labrador retrievers are a more popular pet than any other dog.

Data: According to the American Kennel Club, the Labrador retriever was the most commonly registered dog in the U.S. in 1997, 2002, 2006, and 2007.

Warrant: *Because* year after year the Labrador retriever has been bought as a new pet more than any other dog, this breed is more popular than any other.

Claim: Rottweilers are not as popular as they used to be.

Data: In 1997 they were the second most often registered dog; in 2007 they were the fifteenth most often registered dog.

Warrant: *In that* they were not bought as often as they were in 1997 compared with other breeds of dog, Rottweilers declined in popularity in the decade between 1997–2007.

(continues)

Figure 5–4. Warranting Evidence (*continued*)

Claim: Cocker spaniels are more popular pets than Sussex spaniels.

Data: Cocker spaniels have been among the top twenty newly registered dog breeds in every year between 1997–2007, while Sussex spaniels have never finished higher than 136.

Warrant: *Since* cocker spaniels are consistently among the favorite breed of dogs among the 157 listed by the American Kennel Club, and Sussex spaniels are always ranked near the bottom, it's safe to conclude that cocker spaniels are more popular pets.

The following exercise is a series of claims followed by data. Write a warrant, using the words in the lists above, to explain why the data support the claim. Alternatively, if you disagree that the evidence supports the claim, rewrite the claim and then provide a warrant that explains why the evidence now supports it.

1. **Claim:** Michael Jackson's album *Thriller* is the most popular music ever recorded.
Data: It has sold over 100 million copies, more than twice as many as any album in history.
Warrant:
2. **Claim:** It's going to rain soon.
Data: Dark clouds are overhead and I see lightning on the horizon.
Warrant:
3. **Claim:** Bowling is America's favorite sport.
Data: More people bowl than participate in any other sport.
Warrant:
4. **Claim:** People keep getting taller with each generation.
Data: In the National Basketball Association, the average height of players was 6'4" in 1950, 6'5.5" in 1960, 6'6" in 1970, 6'6.5" in 1980, 6'7" in 1990, and 6'7.5" in 2000.
Warrant:
5. **Claim:** Breakfast Chocolate Chunks are sweeter than Oat Loops.
Data: Breakfast Chocolate Chunks are 53 percent sugar; Oat Loops are only 45 percent sugar.
Warrant:
6. **Claim:** Vegetarians should not eat gelatin.
Data: Gelatin is made from the boiled bones, hooves, skins, and tendons of animals.
Warrant:

(continues)

Figure 5–4. Warranting Evidence (*continued*)

7. **Claim:** Missouri is west of Kentucky.
Data: Missouri is west of the Mississippi River, and Kentucky is east of it.
Warrant:
8. **Claim:** Conrad Elementary School students are the best readers in the state.
Data: Conrad School's reading scores are the highest in the state.
Warrant:
9. **Claim:** Blue jays are mean and aggressive birds.
Data: They have a reputation for stealing eggs and chicks from other birds' nests, and more than 1 percent of blue jay carcasses show evidence of other birds' eggs and body parts in their stomachs.
Warrant:
10. **Claim:** The rose is a beautiful but dangerous plant.
Data: Its stem has thorns that may rip deep gashes in a person's flesh.
Warrant:

They talked about a lot of plans, but sixteen of the twenty-six teachers said they planned to do some gardening. That's more than half of the teachers. Someone might say, "So what?" The next most popular activity was shopping, with ten of the twenty-six teachers saying they planned to shop over the weekend. I have to conclude that gardening is a very popular activity among teachers at Conrad School, because more than half of the teachers chose to garden over the weekend. The teachers chose gardening more often than any other activity.

Here's the paragraph she wrote based on this thinking process:

When I asked the teachers at our school about their plans for the weekend, sixteen of the twenty-six teachers said they planned to do some gardening. The next most popular activity was shopping, with ten of the twenty-six teachers saying they planned to shop over the weekend. I conclude that gardening is a very popular activity among teachers at Conrad School, because more than half of the teachers chose to garden over the weekend. The teachers chose gardening more often than any other activity.

Ms. Fischer has modeled a *process* for converting raw information to analyzed data to a written opinion based on the data.

EPISODE 1.7

Each student composes a draft of a paragraph as Ms. Fischer monitors their attempts and provides assistance as needed. The following samples illustrate the kind of paragraphs the students produced.

Out of all the fifth graders at Conrad School, they liked sports the best. The survey we did showed that 88 out of 400 votes were for sports. That may not seem like much, but gardening only got 2 votes. The other categories got around 12 to 53 votes. Compared to the others, 88 votes for sports looks much bigger.

—Emily

The fifth grade students at Conrad School like to play sports. In a recent survey of fifth graders, 22% of the total votes was for sports. That's high because the ones that have fewer than 88 votes in the survey will be lower than 22%. All of the other ones are less than 88 votes. This result shows that fifth grade kids like to play sports.

—Ryan

The students in Ms. Fischer's class really like to play sports. In a recent survey, 88 votes were for sports, out of 400 total. This is a lot more than other categories, which many of them only got 20 or lower votes. The result of this survey showed that majority of the fifth graders enjoy playing sports.

—Sawyer

The students at Conrad School in fifth grade really like sports and social activities. Some popular sports are baseball, softball, and soccer. Some popular socializing is playing with friends. I know all of this from a recent survey with notes. There were 88 entries for sports and 53 entries for socializing. This survey shows the top two popular entries answered by real kids. So there is proof that out of 400 entries, 53 of them were for socializing and 88 of them were for sports.

—Kaeli

When the students complete their drafts, Ms. Fischer calls on volunteers to read their paragraphs aloud. After listening to each example, Ms. Fischer and some of the students comment on the extent to which the paragraph follows the model for reasoning:

EPISODE 1.8

- The writer made a claim.
- The writer supported the claim by citing data.
- The writer explained the meaning or significance of the data and how the data served as evidence supporting the claim.

EPISODE 1.9

Students, in pairs, exchange papers and peer edit, concentrating on two sets of considerations. First, they check to see whether the writer has made a claim, supported it with data, and explained the meaning of the data so that it serves as convincing evidence; they also judge whether or not the author's reasoning is logical. Then they check matters of form, including spelling, punctuation, capitalization, and complete sentences. This review takes approximately ten minutes.

EPISODE 1.10

Each writer revises her or his paragraph using the peer editor's comments.

Stage 2. Learning Procedures for Arguing in Favor of a Choice

The getting-to-know-you activity has revealed that writers often have difficulty interpreting the data they offer as support for their claims. It is obvious to the fifth graders which activity is most popular. They can look at the charts posted around the room and see immediately which category has the most votes. It's easy to assume that any reasonable reader will draw the same conclusion. Why is it necessary to interpret the evidence?

But during the class discussion the students confuse the percentage of votes cast for sports with the percentage of students who actually like sports. Evidence is not always self-explanatory. These students need rules for interpretation—which can change from context to context—in order to be able to work with the data. Ms. Fischer discusses this challenge with Ms. Alleman, a colleague at nearby Gotha School.

Ms. Fischer and Ms. Alleman want to present their learners with a problem they care about, a problem in which the students devise the rules they will rely on as they examine the data sets and interpret the significance of certain features or attributes. Their experience tells them that fifth graders find visual data most appealing.

Ms. Alleman develops and presents a series of lessons to her class, which is not as diverse as Ms. Fischer's but does include English language learners and three students who have significant learning challenges. Here are Ms. Alleman's goals:

- All students will develop procedures for informal reasoning.
- All students will apply the procedures for informal reasoning when analyzing data and drawing logical conclusions.

- All students will apply the procedures for informal reasoning in a written analysis of a problem in which they apply a set of criteria while judging the relative merits of proposed school mascots/team names.

The materials Ms. Alleman uses are examples of unconventional school mascots/team names—Banana Slugs, Pretzels, Wooden Shoes, and Alices—and depictions of submissions for a proposed mascot for an elementary school.

Ms. Alleman introduces the activity by noting that school mascots identify and distinguish a school and a community. Students, staff, and graduates take pride in the school mascot. She asks the students to share their impressions and feelings about their own school mascot (the common field mouse) and the associations it conjures up. These questions prompt the discussion:

EPISODE 2.1

- What is our school mascot?
- How was the mascot selected?
- Do you like the mascot? Why or why not?
- If you were to select a different mascot, what would it be? Why would you select it?

The students evaluate the school's choice of mascot, and some are adamant that it be changed.

To help the students articulate criteria for a good school mascot, Ms. Alleman displays four mascots of real sports teams on an overhead transparency (see Figure 5–5): the University of California Santa Cruz Banana Slug, the Freeport (IL) High School Pretzel, the Teutopolis (IL) High School Wooden Shoe, and the Vincennes Lincoln (IN) High School Alice ("Big A"). She asks the students to evaluate the merits of each mascot:

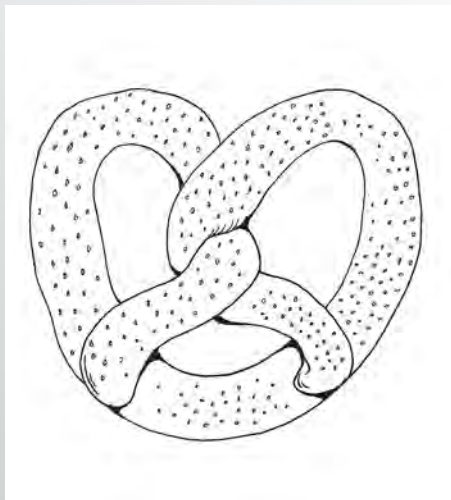
EPISODE 2.2

- Do you think the mascot is a good one?
- If you like it, what makes it a good mascot?
- If you don't like it, what makes it a bad mascot?

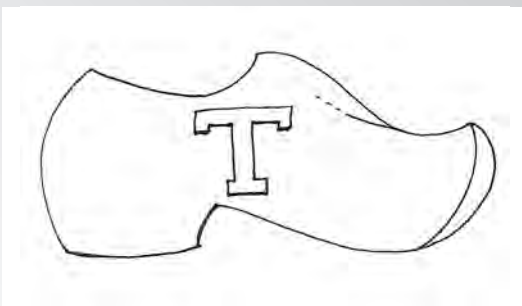
Initially, the students dismiss the mascots as "stupid" or "dumb." When pressed to explain what makes a mascot dumb, one student observes that pretzels are not something she would take pride in. She adds that they don't suggest a fierce opponent in competitive events, which gets at the heart of a mascot's purpose.

Figure 5-5. Mascots of Real Schools

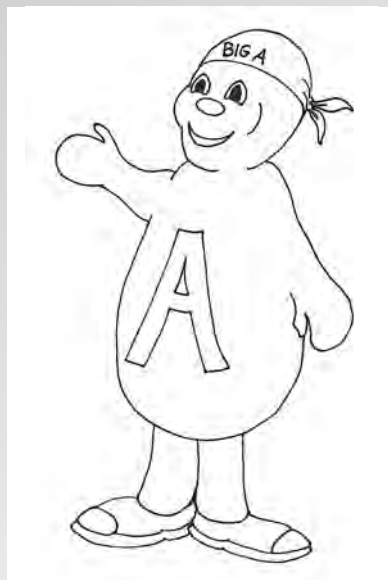
Banana Slug,
University of California Santa Cruz



Pretzel
Freeport, Illinois



Wooden Shoe
Teutopolis, Illinois



Alice
Vincennes, Indiana

Next Ms. Alleman divides the class into groups of three or four and asks each group to propose four or five evaluation criteria for selecting a mascot/team name for a brand new school. Ms. Alleman then moves from group to group, checking their progress and paraphrasing some of their ideas. For example:

Jacqui: What about big?

Mary Jane: Maybe like slugs—could be funny?

Carl: Sure!

Mary Jane: Needs to be unusual; stands out.

Jimmy: Interesting.

Carl: It could also be unique.

Mary Jane: Well, that's the same as stands out.

Jacqui: Maybe stands out is too hard.

Jimmy: Intimidating.

Carl: Yeah, that's a good one.

Jimmy: Proud.

Mary Jane: Has to have something to do with the school.

Carl: Representing it!

Jacqui: Large instead of tiny.

Mary Jane: No! Think about the slugs. They aren't big.

Jacqui: Think about the Dukes [the mascot for the local high school].

Carl: We all like the Dukes!

Jacqui: Strong. We like that!

Jimmy: Powerful.

Mary Ann: That's like strong.

Jacqui: What's our school color?

Jimmy: Blue and grey.

Jacqui: Okay, has something to do with the color.

EPISODE 2.3

To prompt the students to consider a broad range of criteria, Ms. Alleman calls on representatives from each group to report what they have come up with. As they paraphrase, clarify, and evaluate all the suggestions, the class derives a common set of criteria for a good mascot/team name. Ms. Alleman records the criteria on an overhead transparency and asks all the students to copy the final version:

- Good mascots/team names are often strong or tough or fierce animals (e.g., Detroit Lions, University of Georgia Bulldogs, University of Kentucky Wildcats, University of Wisconsin Badgers).
- Some good mascots/team names are cuddly, such as the Fort Collins (CO) High School Lambkins and the Omaha Benson (NE) High School Bunnies.
- Good mascots/team names often have some connection to the school, community, or state, especially when the name is unique (e.g., Joliet Ironmen, Purdue Boilermakers, Texas Christian University Horned Frogs, Green Bay Packers, Cobden Appleknockers, Nebraska Cornhuskers, Savannah Sand Gnats, Oklahoma Sooners).
- Good mascots/team names are usually something that someone would be proud to be (e.g., University of Washington Huskies, Vanderbilt University Commodores, Rutgers University Scarlet Knights, Kenyon College Lords).
- The mascot/team name should be appropriate for both boys and girls, unless the boys' and girls' teams go by different names (e.g., the Stephen F. Austin University Lumberjacks/Ladyjacks).
- A good mascot/team name is usually something that community members and students can relate to; names like the Yuma (AZ) High School Criminals are rare, while the name of the Chinook (MT) High School Sugar Beeters shows pride in a community industry.
- Good mascots/team names often use alliteration or assonance so they will sound right when linked with the school name (e.g., Leo (IN) High School Lions, Mesquite (TX) High School Skeeters, Richmond (NC) High School Raiders).
- Some good mascots/team names rely on inside jokes, such as the University of California Irvine Anteaters and the Williams College Purple Cow.
- Good mascots/team names may be funny or rely on puns, as in the Macon Whoopee (minor league hockey team), the Poca (WV) High

School Dots, the Gwinnett Gwizzlies (minor league basketball team), and others.

- Although mascots/team names in the past were often related to Native American tribes, today such names are viewed as controversial or offensive and should be avoided (e.g., Wynnewood (OK) High School Savages, Cleveland Indians, Illinois Fighting Illini), even when they appear to focus on strong attributes (e.g., Atlanta Braves).

To give her students practice in applying these criteria, Ms. Alleman asks them to imagine that the John L. Lewis Elementary School has just opened but has not selected a mascot. The assignment (see Figure 5–6) centers on the proposed mascots depicted in Figure 5–7.

EPISODE 2.4**Figure 5–6. Mascot Problem**

The John L. Lewis Elementary School leaders are running a contest to select the new mascot for the school. The image of the mascot will appear on the gym floor, on school stationery, on school-spirit clothing, and on publications. Four drawings (attached) have been selected for final consideration, and you are one of the judges. Here is what you need to do:

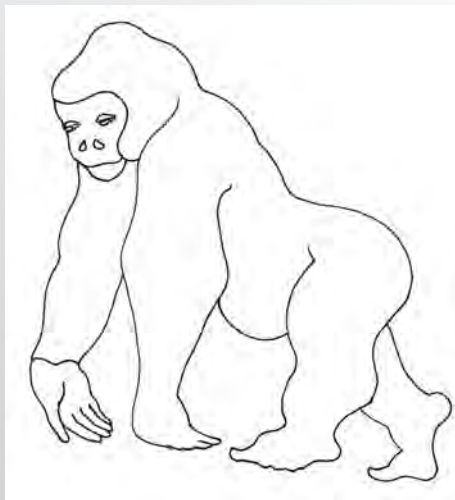
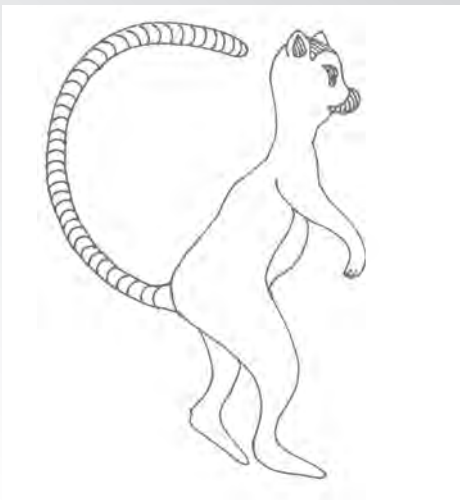
Evaluate each of the drawings, and write an explanation of why it would or would not serve as a good mascot, based on the evaluation criteria the class has developed together.

In making a judgment, keep the evaluation criteria in mind, consider the profile of the school and community (which follows), and study the details and attributes of the proposed mascots.

Profile of John L. Lewis Elementary School

John L. Lewis Elementary School opened in 2005 in Floodrock, Illinois. Floodrock is located in Saline County in the very southern region of the state. The current enrollment at John L. Lewis is 315 students.

John L. Lewis Elementary is situated in an area that has two major businesses: farming and coal mining. The area has long been rich in coal mines, and many families in Saline County have had some connection to the coal mines. Since fewer homes and businesses depend on coal as an energy source these days, the activities in the mines have slowed, and the coal companies employ few residents. At the same time, the town of Floodrock and the rest of Saline County still associate themselves with the coal industry. That is why the citizens named the school after John L. Lewis, who was the president of the United Mine Workers of America for 40 years.

Figure 5-7. Proposed Mascots for John L. Lewis Elementary School**Manatee****Lowland Gorilla****Lemur****Miner**

EPISODE 2.5

Ms. Alleman then leads a discussion in which the students identify and assess the attributes associated with each potential mascot by answering these questions:

- What features or attributes do you associate with a *gorilla*?
- What features or attributes do you associate with a *miner*?
- What features or attributes do you associate with a *manatee*?
- What features or attributes do you associate with a *lemur*?
- How do these attributes match the criteria the class generated for selecting a good mascot?

Here is a bit of their discussion:

Nicholas: Manatees are kind of slow moving. You said yourself that some people call them sea cows. No one would want to think of himself as a sea cow.

Barbara: Gorillas are really strong. That would be good if you want to frighten the other teams. But gorillas have nothing to do with Illinois.

Nancy: And it doesn't sound right—the Lewis Gorillas.

Ms. Alleman: So what if it doesn't sound good?

Nancy: You want a mascot name that sounds right for the school. Then the cheers would sound right.

Ms. Alleman: How about the lemurs?

Ed: That sounds better—the Lewis Lemurs—but who would want to be a lemur? They are like shy little animals. The mascot has to be strong or powerful so that people want to be like it.

Ms. Alleman says that she expects each student to write a *thorough* and *logical* paragraph about one of the proposed mascots and that she will demonstrate what a writer might think while composing one. She composes the following paragraph on a projected transparency, thinking out loud as she writes (her thoughts are shown in brackets):

EPISODE 2.6

The bobcat is a good example of a mascot for Gotha School. [*Why would I say that?*] A bobcat is a very smart animal and is a strong defender of its home and family. [*Why is this important?*] A student at Gotha can take pride in being represented by an animal that is a smart and strong protector of its family. [*But isn't a bobcat kind of scary?*] Although the bobcat can be an aggressive fighter, it attacks to survive and to protect its young, not to be mean.

The students then write their own paragraphs justifying their choice of a mascot for Lewis Elementary School (two typical examples are shown below).

The miners are a good mascot for John L. Lewis elementary school. Everyone in the school can take pride in their past because their town was a mining town. Another thing miners have to be strong to get whatever they are mining. These characteristics are important because kids should be proud about their mascot, and their past.

—Hannah, Grade 5

The Lowland Gorilla is a good mascot for John L. Lewis school. A Lowland Gorilla is very intimidating, very smart, and is very strong and powerful. The Lowland Gorilla can make the students at John L. Lewis proud. All mascots should be strong and powerful so that the student can be proud and take pride in.

—Kristian, Grade 5

Stage 3. Language Lesson: Learning Procedures for Using Coordinating Conjunctions

A written argument often uses coordinating conjunctions to qualify or expand on a statement. This is a good place in the instructional sequence to include a minilesson on how to use (and punctuate) coordinating conjunctions to clarify points in an argument (see Figure 5–8).

Stage 4. Applying the Procedures to a More Complex Problem

Students are now ready to consider more complicated problems using similar data sets but requiring more extensive analysis and explanation. Ms. Kelly's students at Thoreau School have recently enjoyed reading *Shiloh* and *Because of Winn-Dixie*, two novels that feature a dog that is important in the life of a family. Ms. Kelly decides this is a prime time for her students to explore finding appropriate homes for dogs available for adoption. Ms. Kelly's instruction includes small- and large-group discussions in which students negotiate how they are going to match dogs and prospective owners. Defending decisions that are questioned and challenged by their classmates, students engage in the same kind of thinking that will later guide their writing when they turn their notes into multiple-paragraph compositions.

Figure 5–8. Combining Sentences Using Coordinating Conjunctions

A coordinating conjunction is a word or small group of words that combines two parts of a sentence. Most commonly people use *and* for this purpose, as in the following sentences:

Bob *and* Rhoda invested all of their money in a pyramid scheme.

Now Bob is broke, *and* Rhoda is selling all of her jewelry on the Internet.

In the first of these two sentences, *and* is used to form a compound subject for the sentence, Bob *and* Rhoda. In the second sentence, *and* is used to form a compound sentence—that is, one in which there are two independent clauses connected by a coordinating conjunction (*and*). In other words, each of the two parts of the sentence can stand by itself, but they are combined into one by using *and*. Note how each of the following could stand alone as a complete sentence:

Now Bob is broke.

Rhoda is selling all of her jewelry on the Internet.

Using the coordinating conjunction *and*, we may combine these two sentences into this compound sentence: “Now Bob is broke, *and* Rhoda is selling all of her jewelry on the Internet.”

In the exercise that follows, you are given two independent clauses (clauses that can stand alone as complete sentences). Use any of the following words to connect the two clauses into one:

hence

however

therefore

besides

moreover

consequently

When you use words from this list to connect two independent clauses, they should *follow a semicolon* and *be followed by a comma*, as in the following examples:

I like Banana Slugs; *however*, they do benefit from a wee bit of salt.

Manatees are soft and cuddly; *therefore*, I would rather have one as a pet than as a mascot.

Wolverines can rip your flesh off; *moreover*, they can eat your vital organs.

(continues)

Figure 5–8. Combining Sentences Using Coordinating Conjunctions (*continued*)

For each of the following pairs of sentences, use a coordinating conjunction from the list to create a single compound sentence. Be sure to punctuate the sentences properly, using a semicolon before the conjunction and a comma following it.

1. The Lake Forest Academy Caxys is an excellent name.
I think it wouldn't work for Lewis Elementary School.
2. I think that the name Wooden Shoes would be swell for a sports team.
I don't see how you could play basketball in them.
3. Crystal Lake South High School north of Chicago calls its teams the Gators.
They are 1,000 miles from the nearest alligator.
4. Webster University made up the name Gorloks for its teams.
I suggest we call our teams the Lewis Laxtones.
5. I really love the taste of pretzels.
I think that the name Pretzels would really rock for Lewis Elementary.
6. The Key School of Annapolis, Maryland, calls its teams the Ozebags.
Few people know that it is an anagram for Gazebos.
7. I don't know how the St. Louis College of Pharmacy Eutectic picked its name.
I don't think I want to know.
8. Presbyterian College calls its teams the Blue Hose.
I would much rather wear White Sox.
9. I like the sound of the Chattanooga Central Purple Pounders.
We should call our team the Lewis Mauve Marauders.
10. The Colby College teams are known as the White Mules.
I find this name offensive to albinos.

Ms. Kelly introduces the problem by distributing a copy of a rescue center's pet adoption rules she created by looking at those found on the Internet (see Figure 5–9). To help students understand what rescue center workers do, Ms. Kelly has her students experience the process for themselves.

First, she has each student fill out a preadoption application form (sample forms are available on animal shelter websites).

Next Ms. Kelly displays a picture of a mature boxer: “Lady is a two-year-old boxer. She has lived in an apartment in the city with a young professional who had to leave the dog alone for long periods of time. Lady has not often been around people or other dogs, so she is rather shy. She loves to exercise, although she also enjoys periods of quiet companionship. Lady weighs 60 lbs.”

Several students assess the dog's potential to fit in with their family, generating possibilities that they then modify in discussions with their classmates. One student offers: “She would fit right in. We already have two big dogs. We have a big fenced-in yard. Everyone at my house loves dogs. So

Figure 5–9. Pet Adoption Process

Background: Every day, Monday through Saturday, visitors come to the Floodrock Pet Rescue Center, in Floodrock, Illinois, in hopes of adopting a new pet. Of course, the workers at the rescue center care very much for the animals that they protect, and they want to place them in good homes, with loving and responsible pet owners. The workers cannot let people walk in and pick out any pet they want. The workers at the rescue center try to counsel potential owners about selecting the appropriate pet, so they have worked out a system.

Here is the process for dog adoption:

1. Each dog is categorized by its particular characteristics: big or small, companion or worker, leisurely or active, social or shy, etc. Each person who wants to adopt must fill out an application. The answers to the application questions help the rescue center workers know what kind of dog would be a good match for the person who wants to adopt it.
2. The rescue center manager reviews the dogs' profiles and the applications, meets with the people who want to adopt a pet, and recommends the best match. For example, a person who has a small apartment and spends most leisure time reading or watching television is not the best person to own a big dog that wants to exercise, run in open spaces, and meet other dogs and people.

she would be another member of the family.” Other students suggest that she has overlooked some possible problems: two big dogs might already be enough for the family’s available space, and the new dog might have trouble fitting in socially given her shyness.

EPISODE 4.2

Ms. Kelly divides the class into several smaller groups and gives them instructions for matching dogs with potential owners (Figure 5–10), along with a portfolio containing the necessary materials: six pictures and descriptions of dogs currently available for adoption, and profiles of four possible pet owners. After discussion, students individually prepare a written response.

Figure 5–10. Instructions for the Pet Adoption Activity

Your Job as a Team: This week there is a new group of visitors who want to adopt dogs, and there is a new bunch of dogs that are eligible for adoption.

1. Working with your partners, categorize the dogs (“couch potato,” “busy bee,” “free spirit,” etc.), and then describe the characteristics of the best home and the most appropriate owner for each one of the dogs.
2. Study each application submitted by someone who wants to adopt a dog. Judge whether the person is suited to owning a dog and the best type of dog for that person. Discuss your decisions with your partners and explain why you have made the matches you did.
3. As you participate in the discussion, take notes about each person who has applied to adopt a dog. Write your notes in complete sentences. State the match and explain the reasons why the match is a good one. If someone is not an appropriate match for any dog, explain why.
4. In a whole-class discussion, explain the matches you recommend and why you recommend them. The class might have questions about your choices, so you’ll want to be prepared to respond to those classmates who have doubts.

Writing About Your Matches: After you have discussed the possible matches thoroughly and have taken notes, write to Ms. Kay Neins, manager of Floodrock Pet Rescue Center, explaining the judgments you have made as you matched persons with pets. Ms. Neins is just returning from a long vacation and will have

(continues)

Figure 5-10. Instructions for the Pet Adoption Activity (*continued*)

to counsel the people who want to adopt a dog. Because she's been away, she is unfamiliar with the new dog arrivals and the new applicants. A letter from you will prepare her for her meetings with the hopeful owners. The following steps will guide you as you write your letter:

Step 1. Using your notes, compose a draft letter to Ms. Kay Neins, manager of Floodrock Pet Rescue Center. You needn't bother with a personal introduction, but do let her know that you are aware of the challenge she faces in matching potential pet owners with the right dogs. The introduction will preview the discussion that follows. Also include a conclusion in which you review your judgments about matching persons with dogs. In short, your letter will have an introduction (noting the current problem), a paragraph about each potential dog owner and the appropriate dog, and a conclusion that generally reviews how to match people with dogs.

Step 2. Allow other readers to examine the draft of your letter. You are probably proud of your work and will want to show it to family members and friends. In class, exchange your draft with a classmate. Allow your classmate to ask you questions for clarification. Your reviewers will probably check that you have applied the rescue center's guidelines for matching pets with owners, or they may want to know more about the dogs or the people interested in being dog owners. This is a clue that you need to explain or provide more details in your letter. Remember that Ms. Neins will not have all the pre-adoption applications and the dogs in front of her when she reads the letter. She will need *your* descriptions to help her recall the details. Also rely on your classmates and any available adult reader to help you with spelling, sentence and paragraph formation, and punctuation.

Step 3. Rely on the questions and comments of your readers to guide you in rewriting your letter in a neat and corrected form. This should be a neat and error-free letter that can help Ms. Neins counsel the people who want to adopt a dog.

Olivia's letter is shown on the next page. Notice that Olivia states the problem and explains why it is significant. She recommends her matches systematically, citing the attributes of the dogs and the characteristics of the potential owner and the owner's environment. She also explains how she connected various details to arrive at her conclusions.

Example of Student Writing: Olivia's Letter

March 15

Dear Ms. Kay Neins,

I understand that you are struggling with pairing dogs with the right owners. For the sake of the pet and the owner, it is important to match the right dog with the most appropriate owner. I am writing to you to help you find homes for the dogs. I think some great pairs are the following: Emily Adamo and Bailey, Mike Lillis and Rascal, Mr. Smithers and Wolfie, and Vivian Glaussen and Shep.

I think that Bailey is a good dog for Emily Adamo. Bailey is a Golden Retriever. She is a good dog for Emily because Emily runs daily and Bailey is a running dog and can run with Emily every day. Emily works as a child psychologist and has three children of her own. She works in her home office from late in the afternoon into early evening hours. When she is at work she has a husband and three kids to watch over Bailey, who loves the company of humans. Bailey has a reputation for being good with children, so she will be a safe dog for Emily's children and for the young visitors to the home.

Rascal is probably a good dog for Mike Lillis because he lives and works on a farm, he wants a dog that can help him work on the farm and Rascal is a work dog. Rascal is a Dalmatian and dogs of that breed like to run. Mike works long hours and Rascal will be in the barn. There is no fence around Mike's yard but also there are not a lot of cars so he will not go running off into the streets. Rascal is a willing worker, but needs to be trained. Mike is an experienced farmer so he will be able to train him.

I think Wolfie is a good dog for Mr. Smithers. Wolfie is an Akita/Husky mix. He is a good dog for Mr. Smithers because he wants a guard dog and Wolfie is a guard dog. When Mr. Smithers is gone for nine hours, Wolfie will be able to stay home and be okay, because Wolfie is not very active because he is getting old. When Mr. Smithers is out for long hours, he will need a guard dog to watch over the house. Wolfie can do this job! While Mr. Smithers and his wife are not home, Wolfie will stay in the laundry room and the room is rather large so he will have room to walk and play around. In the winter when the Smithers are gone, the room is heated so Wolfie will stay warm. They have a fenced in yard with a chain linked fence about four feet high, so this gives him enough room to run around and play in a protected area. I think these two would be great companions.

I think a good dog for Vivian Glaussen is Shep, a mixed breed. It's a good dog for her because she is an older woman and does not need an active dog bouncing off the walls. She lives in a small condominium so he won't have that much place to run around. However, Vivian does not have a yard, so

she will take Shep to a nearby park. She does not work out of her home, but while Ms. Glaussen volunteers and visits friends, Shep will be home alone for approximately twelve hours per week, or approximately two hours per day. Shep is cautious around children, but that is okay because Vivian does not have children.

Thank you for taking the time and reading my letter. I am glad that I had a chance to recommend how to pair these dogs with the right owners. I hope you approve of my choices because the suggestions should lead to strong long-term relationships between dogs and owners.

Respectfully,

Olivia

Olivia developed her response to this assignment through reasoned thought. Many elements in the process helped her do so:

1. Before small groups of students discussed the potential adoptions, they learned what the adoption process entailed.
2. Ms. Kelly had modeled the decision-making process.
3. Olivia benefited from small-group work with predetermined data. Disagreements within the groups forced students to explain why they had recommended their matches.
4. A structured note page prompted the students to record their decisions and the basis for them.
5. Before the students began writing, Ms. Kelly reminded them of their audience and the purpose of their letter. She also reviewed the evaluation criteria, outlining the specific traits that would distinguish a quality response.
6. As Olivia drafted her response, she shared it with classmates, who provided feedback about her reasoning and about the extent to which the composition matched the evaluation criteria.
7. Ms. Kelly conferred with Olivia and helped her edit the letter.

Extensions

1. Have students take the procedures they've learned and apply them to problems in other curricular areas in which analyzing data and persuading others is relevant. In science class they can argue for the

best diet for animals in the classroom terrarium, the conditions that result in water pollution, and so on. In history class they can argue the merits of different forms of government, the qualities of people running for elective office, and other aspects of civic participation. In language arts class they can argue which authors write the most interesting stories, which characters are responsible for which consequences, and so forth. In health class they can argue the consequences of diet, environmental exposure, and human or animal contact.

2. Have students conduct debates or mock trials on the issues they've written about.
3. Have students write letters to city administrators or local media or express and defend their opinions on a personal blog. By extending their argumentation beyond the classroom, students see that argumentation is not static but must respond to the particular expectations and conventions that govern appropriate and effective communication within different communities.

What Makes This Sequence a Structured Process Approach?

This instructional sequence helps younger students learn procedures for making claims, examining data that might support those claims, and warranting data as evidence for the claims. Older students can also be taught how to anticipate and rebut opposing positions. In any case, by working with their peers throughout the process, students undoubtedly hear objections to their perspectives; their final argument is therefore shaped in part by their awareness of potential counterarguments.

The activities progress from most accessible to more complex, providing a scaffold for grasping the principles of and procedures for argumentation. In the gateway activity students construct claims based on their own leisure pursuits, so they are able to formulate claims without having to also learn new information and concepts.

The second activity, considering and arguing in favor of an appropriate school mascot, takes the students out of their familiar world a bit but still allows them to apply their own beliefs. Also the task is open-ended; there is no single correct answer and various perspectives can flourish.

The instruction in how to use (and punctuate) coordinating conjunctions to clarify points in an argument is directly tied to the students' writing—it's designed to help students experiment with syntactic strategies for presenting

sophisticated ideas in arguments as they coordinate a set of ideas in a single compound sentence.

The third activity, matching rescued dogs with new owners, takes students further outside their world of experience. Having to consider both new content and a new concept makes the task more abstract and therefore more complex.

The teachers featured in this chapter have worked outside class to plan activities that engage the students in class. In the first activity the preassembled materials prompt the students to produce their own data set. For the other two activities, teachers find strange or amusing school mascots on the Internet and prepare descriptions of dogs up for adoption and the people who might adopt them. Once the materials have been assembled and the activities conceived, the work is turned over to the students, who inductively develop procedures for making and substantiating claims. The teachers model *process* by thinking aloud while composing paragraphs in front of the class.

The students' work in class is highly social as they talk through the problems presented. Their discussions as they generate possible claims, relate them to the available evidence, and consider possible consequences are collaborative, critical, playful, experimental, and imaginative. Because the tasks are open-ended—though not to the point that any solution will do—there is room for students to make different yet equally plausible claims based on the same evidence, as is true in life.

Students learn how to think argumentatively and convert that thinking into written composition. The emphasis on procedures—learned inductively by participating in carefully sequenced activities that involve high levels of student activity and discussion related to the demands of a specific task—is a hallmark of a structured process approach to teaching.

Questions for Reflection

1. What associations do you think many students make when they hear the word *argument*? For the students, would the word generally have positive connotations, or negative ones? How would you know what students' impressions are?
2. If students generally have a sense that *argument* means something combative and competitive, how can you influence their thinking so that they are open to the use of argument in a constructive way?
3. Do you think of argument as a mode of writing? If it is a distinct mode of writing, how is it different from other modes? If *argument*

is a term that applies to a broad category of writing, how can such seemingly diverse types as definition, analysis, persuasion, and exposition be similar?

4. If you wanted students to develop skills in writing arguments over time, what sequence might you follow to introduce simple writing experiences and then progress systematically toward increasingly complex expressions?
5. How can frequent peer interaction in small groups and large groups play a key role in the development of skills in argument? How can you facilitate such interactions so that they are productive and not simply diversions?
6. To what extent is it reasonable to think of a standard model for argument? If argument is a relative cultural construct, how can learners adapt their thinking to account for multiple ways of making an argument?
7. What issues from the school or the community can serve as appropriate topics for discussion and for writing related arguments?
8. How can you construct learning activities that will engage students in the processes of argument and invite learners to reflect on those processes?
9. How will the study of argument support efforts to prepare students for state assessments of writing?