Teaching Thinking and Writing for a New Century

Since the publication of A Nation at Risk in 1983, a number of scholars, business leaders, commissions, and committees have examined the question of what our students should know and be able to do in order to be successful and productive citizens. Their conclusions are remarkably similar, and they have important implications for the teaching of writing in the twenty-first century:

The skills needed now are not routine. Our economy will be increasingly dependent on people who have a good intuitive grasp of the ways in which all kinds of physical and social systems work. . . . They will, of course, have to have a basic stock of facts and know how to carry out basic procedures, but it will be essential for them to understand how those facts were derived and why those procedures work. They will spend a lifetime deciding which facts are relevant and which procedures will work for a constantly changing array of problems. We are describing people who have the tools they need to think for themselves, people who can act independently and with others, who can render critical judgments and contribute constructively to many enterprises, whose knowledge is wide-ranging and whose understanding runs deep. (A Nation Prepared 20)

The modern employee must be more highly educated, better informed, more flexible than ever before. He or she must be, because what we’re paying for is the ability to think, to solve problems, to make informed judgments, to distinguish between right and wrong, to discern the proper course of action in situations and circumstances that are necessarily ambiguous. (Kearns and Doyle 9)

In the old industrial model, thinking was left to the managers, and doing to the hired hands. Today, to be competitive, what seems to be required is thinking throughout the production process. Competitive high-performance work organizations seek entrants who can think their way through unfamiliar problems, who can use complex tools, and who are able to envisage the place of their own activity in the much broader activity of the workplace. (Lauren Resnick, qtd. in O’Neil 7)

To build citizens for the 21st century, we must continuously strive to offer instruction that helps students learn to see “through the eyes, minds, and hearts of others.” (Ramler 45)

How can we design writing instruction to help students develop the tools they need to solve complex, unfamiliar problems; think for themselves; act independently and with others; discern the proper course of action in situations that are ambiguous; and understand a variety of perspectives? I have found that to achieve these goals instruction needs to be designed with several important characteristics in mind. First, it needs to focus on problem-solving or inquiry. In other words, the teacher must design instruction that presents a puzzling event, question, or problem. The students

- formulate hypotheses to explain the event or solve the problem
- collect data to test the hypotheses
- draw conclusions
- reflect on the original problem and the thinking processes needed to solve it.

Furthermore, as Kahn, Walter, and Johannessen note in “Making Small Groups Work,” the
instruction needs to engage students in exploring problems that are intrinsically interesting to them, that have no quick or easy solutions but are open to a variety of solutions and/or interpretations, and that are complex but not too complex or abstract for their particular level. As stated above, an important dimension of designing inquiry “problems” is providing a set of data (or devising a means for students to collect data) that they can bring to bear in attacking the problems.

This discussion requires students to consider why, for example, an unwed mother would or would not “lead” others in the wrong direction.

Another important dimension of instruction is the use of small group collaboration to promote high levels of student-to-student interaction. This element is important because it helps students gain a greater understanding of other perspectives. As students’ ideas or hypotheses are challenged by others, they revise and refine their thinking. As several researchers note, small-group collaboration also provides scaffolding for students while they are learning new strategies so that ultimately they internalize procedures and are able to tackle new tasks effectively on their own.

Finally, writing instruction must be sequenced to move from concrete to abstract and from simple to complex in terms of materials, activities, and tasks and from more teacher direction and control at the beginning when introducing new skills and strategies to less teacher control and more student independence as students become more confident and gain mastery of skills and strategies or the procedural knowledge necessary to perform the task on their own.

What follows are a few examples of activities for teaching composition that incorporate the features described above. These are activities that I have used in teaching argument and persuasive writing.

Introducing Argument

I begin by giving students an activity, “Does She Deserve Honor?” (Appendix 1), that is designed to put students in a problematic situation that will make them think about and ultimately decide if an unwed teenage mother who has an excellent academic record should be admitted to the National Honor Society after she was denied admission by a faculty committee because they claim she lacks character and leadership. In addition, the case study problem introduces students to the thinking strategies and rhetorical skills involved in argument and persuasive writing.

After passing out the case problem, I read it aloud to students. Then, I put students in small groups and ask them to discuss the case and answer the questions posed at the end of the case. In other words, I ask the groups to attempt to reach a consensus on whether Jennifer Dinesen should be admitted to the National Honor Society. After fifteen or twenty minutes—or longer if needed—I re-form the class for discussion. I ask students to present their responses to the questions and their decision and discuss differences. The discussion begins with one group presenting their responses and decision and listening to responses and decisions from the rest of the class. At this point, the class discussion usually becomes quite lively as students argue their positions and refute others. This discussion requires students to consider why, for example, an unwed mother would or would not “lead” others in the wrong direction.

In the small group and whole class discussion students are introduced to and are practicing the skills and thinking strategies involved in argumentation. They must come up with arguments, counterarguments, and evidence from the case to justify their decisions. For example, in attempting to explain why an unwed mother has not lost her “character,” students will have to refute the opposing viewpoint that an unwed mother is not of strong character. Here is an example of an exchange that took place in one tenth grade class after students had discussed the questions in small groups:

**Student 1:** We thought Jennifer exhibited strong leadership because after she had her baby she devoted all of her out of school time to her most important responsibility—“caring for her baby daughter.” She is showing...
others that she is taking responsibility for her actions.

Student 2: We thought exactly the opposite. She lives at home with her parents. Her parents are supporting her and, as it says right here on the paper, “they take care of the baby” when she is at school. If she was really a leader, she would get a job and support herself and her baby instead of letting her parents support them.

Student 1: You’re wrong. When most high school girls get pregnant, they usually hide it so that nobody knows. Jennifer is just the opposite. She is taking a lot of stuff from other kids in school. It shows a lot of “courage” to stay in school, keep her daughter, and face all the stuff from other kids. She is showing other kids that you can make a mistake and live with that mistake.

Student 3: You just said it: “Mistake!” By getting pregnant she made a mistake that shows she lacks leadership. A true leader would not go crying to everyone about how “deeply hurt” she is by the faculty selection committee’s decision because she has “worked so hard for four years.”

This exchange continued in a similar manner for several minutes. This brief example illustrates how the activity engages students in practicing the skills and thinking strategies involved in argumentation. For example, each of the students presents a claim with evidence from the case for their position. Student 1 presents a counterargument to Student 2’s argument. At the end of this exchange, Student 3 offers a counterargument for student 1’s counterargument. It is important to note that there is no right or wrong answer for this case study problem. This inevitably leads to lively small group and whole class discussions in which students are actively debating, practicing the thinking skills involved in argumentation. Up to this point, students have formulated hypotheses, tested their hypotheses utilizing the data provided, and drawn some tentative conclusions. The next step takes them through the inquiry cycle described above.

Once all students have had a chance to express their views, it is important to have them reflect on the problem presented in the case and the thinking processes involved in solving it. I ask students to discuss the arguments and counterarguments that seemed particularly strong and what made them strong, as well as those that were weak and why. I also asked them to discuss how weak arguments and counterarguments could be improved.

There is rarely complete agreement as to what should be done in Jennifer’s case. This situation provides a natural follow-up writing situation. I have students write a composition explaining why Jennifer should or should not be admitted to the National Honor Society. They should include evidence from the case to support their arguments and counterarguments and evidence to refute the opposing viewpoint. This follow-up writing situation gives students practice using the skills and strategies they have rehearsed in their small group and whole class discussions. What is most important at this point is that I have introduced students to and given them some practice with the thinking strategies involved in argument: generating and supporting a claim, challenging others’ viewpoints, clarifying reasoning, answering objections from their audience, providing and explaining evidence, and criticizing faulty logic.

Building on the Initial Activity

Once students have a good idea of what is involved in producing an effective argument, they will need additional practice. The next activity I have students work with involves the case described in Appendix 2, “The ‘95 Blue Chevy” (adapted from Johannessen and Kahn, “Teaching English Language Arts for a Technological Age”). With the honor case problem, students were primarily arguing whether Jennifer’s situation met the test of two rules, but this case adds a new level of difficulty in that they will have to argue about something that is a little bit more complex and abstract and involves the law. Students are given the case and divided into small groups of about four. Each group is asked to discuss the case and decide whether the police were justified in their actions toward the teenagers and to be prepared to present evidence and reasoning to support their position.

The groups usually begin with disagreement among the members. Soon questions emerge as one student says, for example, that the police should have read the boys “their rights.” Another says they don’t have to because the boys weren’t arrested. Students begin to raise questions: When do the police have to read someone their rights? Don’t they have to tell the boys why they’re being frisked? Can the police stop a car and search it for no reason? Don’t they have to have a warrant to search the car?
At this point I give the groups the information from Figure 1 concerning “The Powers of Law Enforcement Officers” to help them in their discussion of the case. After the groups discuss the case in terms of these criteria, they present their analyses to the class. The following excerpt from a class discussion of eleventh grade students illustrates the nature of the conversation. (The discussion in small groups is much the same.) As the discussion began, many students were eager to present their ideas. All the teacher had to do was call on those who raised their hands or ask students who were interrupting others to wait for their turn; therefore, the teacher’s remarks are not included until later in the discussion when they are more substantive.

**Student 1:** There’s no way the police are justified. They can’t even pull the car over unless, uh . . . it says here, “they have reason to believe that someone in the car has committed a crime.” Just because their car is a ’95 blue Chevy doesn’t mean they committed the crime. There’re lots of ’95 blue Chevies, and . . .

**Student 2:** (Interrupting) It isn’t just the car. We say the police have a reason to think that these are the robbers. The car’s the same; the boys fit the description of the robbers.

**Student 1:** (With exasperation) But it’s just a general description.

**Student 3:** Yeah, just because two of these boys happen to be white and one happens to be Hispanic doesn’t mean they robbed the store.

**Student 4:** How could they even tell, if they’re speeding, what the boys are?

**Student 2:** Yeah, but it sure’s suspicious. They just happen to be, it says, “three blocks from the scene of the robbery.”

**Student 5:** There’s another reason . . . uh . . . We didn’t all agree, but we talked about the fact that the boys were speeding. Why were they speeding only three blocks from the robbery unless they committed the crime?

**Student 1:** (Sarcastically) Right, so yeah, they did it. Huh? Like it’s all like coincidences. Lots of teenagers go over the speed limit, but that doesn’t mean they robbed a store. They have a right to pull them over for speeding, but that doesn’t give them the right to do all that other stuff.

**Student 3:** You may be right. I didn’t think of that.

**Student 6:** The police always do that. I was pulled over one time for no reason at all, and they were real snotty to us.

**Teacher:** Okay, let’s get back to this case. You were saying that they have a right to pull them over for speeding but not to frisk them, search the car, what?

**Student 7:** What about . . . it says the robbers were armed with a handgun. They may be armed and dangerous. They have a right to defend themselves.

**Teacher:** You mean the police have a right to defend themselves?

**Student 7:** Yeah!

**Teacher:** Can you talk about that a little more? What do you mean?

The discussion continues as students raise issues concerning the search of the vehicle and the handcuffing of the boys. These students are actively engaged in discussing and debating the case, and they are orally constructing arguments based on the criteria they were given and data from the case. Student 1, for example, points directly to the criteria to construct his argument that just because the boys and the car resemble the robbers and vehicle used in the robbery does not mean that the police have a compelling reason to pull the boys over. In addition, he draws on the evidence citing the general description of the vehicle and offers the explanation that there are many 1995 blue Chevies, and just because the boys are in one does not mean that they committed the crime.

It is important to note that this is a complex problem with no easy solution. In addition, it is one that students tend to become very engaged in discussing. Perhaps because the problem is made very specific rather than presented abstractly, students are drawn into the situation both cognitively and affectively. In part, their interest may stem from the boys described in the case being teenagers like themselves, but it may also be due to their working collaboratively in small groups and coming to the class discussion with a stake in the solution that their group had worked out. This collaboration also seems to give them the confidence to speak up and engage in the class debate. Furthermore, the case and criteria are accessible for the particular students involved. The information on “The Powers of Law Enforcement Officers” was taken from a legal source but rewritten so that it would be clear and understandable to these students.
students. Finally, the fact that students were introduced to argumentation and persuasion in the previous activity may also account for some of their confidence and sophistication in arguing the case as well as their active participation.

The excerpt illustrates that students are learning complex strategies involved in argument. They are making claims and using evidence to support them. The activity encourages students to make counterarguments because they are faced with the opposing viewpoints of their peers. In addition, the exchange shows that students are encouraged to revise and refine their thinking when their views are challenged by others. For instance, Student 3 begins to question her position after hearing the argument of Student 1 that it was appropriate to pull the boys over for speeding but not for suspicion of robbery.

**Follow-up Writing Practice**

As a follow-up step in the activity, I ask students to write a composition persuading others of their viewpoint on the case—that is, to answer the question, *Were the police justified in their actions toward the teenagers and why or why not?* This follow-up writing is important for several reasons. The discussion usually has to be stopped without everyone agreeing on the case, so the writing becomes an extension of the classroom debate. Second, students now have an opportunity in an independent writing situation to use the strategies they have been practicing orally in the small group and whole class discussions of the case. Finally, students approach the task with confidence because they have had an opportunity to rehearse the arguments they might use in writing their compositions. They have heard the views of their “opposition” and see the need to construct arguments that will refute the opposition’s arguments. Since there are no simple answers here, students approach the writing task as a puzzling event or problem to be solved. As a result, as Hillocks points out in *Research on Written Composition*, the quality of student writing with problem-centered tasks such as this one is usually quite high. Their written arguments are often quite sophisticated and contain the features that have been the focus of instruction—a clear position/thesis, use of specific supporting evidence, recognition of other viewpoints, refutation, and so forth.

In teaching students how to write an argument and persuade others, I have found that it is most effective to include activities like the two I have described, not by themselves, but as part of a sequence of similar activities. As students engage in arguing their viewpoints on a series of different cases, they practice and internalize the procedures and strategies involved in effective argument so that they are more likely to be able to perform them independently whenever they have to create an argument on their own.

**Features That Make the Difference**

I recently observed a class of eleventh graders working on the following activity in small groups. Each group was given a different situation involving stereotypes and/or prejudice. One of the scenarios, for example, stated, “Some minority students ask you to join their group to do a math project. You think they’re not smart, so you join another group. Their group gets an A; yours doesn’t.” Each group was asked to address the following concerning the scenario they received: (1) Identify the stereotype or prejudice. (2) Explain the harm caused by the stereotype to each person in the situation. (3) Do you see this type of prejudice/stereotyping going on at school? (4) What are some ways to combat this stereotype/prejudice? According to the teacher, one purpose of this activity was to get students to do some critical thinking about stereotypes and prejudice, the harm that can result from them, their effects on their own lives, etc., in order to prepare them for writing a persuasive essay on stereotyping and prejudice.
As students worked in their groups, they rather quickly answered each of the questions, and the discussion quickly started to falter. There was little or no debate about the situations. Usually one student suggested an answer (e.g., “The prejudice is against minorities.” “The minority students probably felt rejected; they could end up with low self-esteem.” “Our group doesn’t get an A.” “Yes, I’ve seen this type of prejudice/stereotyping going on at school, but not too often.”) and the rest basically agreed. The students saw little or no ambiguity or anything that was puzzling in the situations. In addition, there was very little to challenge in the comments or views of their peers. After about five to seven minutes of leisurely discussion, the groups felt they had finished the task. Since students found the “solutions” to be clear-cut and the scenarios did not lead to multiple viewpoints or interpretations, the activity did not engage students in the kinds of thinking processes that resulted from the cases of “Does She Deserve Honor?” and “The ’95 Blue Chevy”—processes that I believe are important in helping students develop the tools they need to solve complex, unfamiliar problems; discern the proper course of action in situations that are ambiguous; and understand a variety of perspectives. This is not to say that students did not gain anything from doing this activity or that there is not a time and place when it may be appropriate. But if the purpose is to promote in-depth thinking about complex problems, then it might be more effective if designed differently, so that the scenarios elicit several possible “solutions” rather than one.

**Teaching for Independence**

My goal in the series of case problem activities is to develop students’ strategies to the point that they can perform these kinds of thinking on their own when they do not have a teacher around to break down the tasks into smaller parts, to guide their thinking processes, or to provide scaffolding or a framework for understanding. I want them to be able to analyze a task that involves argument and persuasion and write a composition in which they are able to construct an argument, provide claims with specific supporting evidence, explain the significance of the evidence, and anticipate and refute opposing arguments. I want them to be able to look at their own writing through the eyes of a critical reader and determine how they could revise and improve their work.

To achieve this goal of independence, students need to practice applying the thinking strategies involved in argument and persuasion in different situations. In addition to the two activities I have described so far, I also have students work with a case problem that involves deciding if a platoon commander during the Vietnam War should follow the orders of his company commander and shoot a Vietnamese woman and her young son who may be responsible for killing three members of his platoon. As a final activity, before I have them write an argument on their own, I hand out to the class ten short scenarios such as the following and ask students to rank the actions from most heroic to least heroic, and I tell them that they should be prepared to explain the reasons for their rankings:

1. An accident leaves a gymnast paralyzed. For five years she spends 12 to 14 hours a day in therapy to try to regain the use of her legs. Her hard work results in a miraculous recovery, and she wins a gold medal in the Olympics.
2. A school teacher, invited to be a part of the seven-person crew of the Space Shuttle, dies as the rocket explodes shortly after takeoff.
3. An eleven-year-old boy who sees two men sexually assaulting a thirteen-year-old girl, threatening to stab her if she resists, rides off on his bicycle and gets the police. The officers arrive too late to prevent the rape, but the boy’s actions probably saved her from being killed.
4. A lifeguard rescues a six-year-old boy from drowning in a public pool by dragging him out with a hook.

5. A scientist makes a discovery that will help cure thousands of people with heart disease. (Johannessen 149–50).

After students work on the scenarios on their own, I have them work in small groups and try to reach a consensus on their rankings. However, reaching a consensus is no easy matter. As students try to convince others that they are “right,” they must elaborate the reasons for their choices. In deciding why, for instance, #1 is more or less heroic than #2, students discover characteristics that they think an action must have to be heroic and criteria that can be used to judge whether one action is more or less heroic than another. After the small groups complete their work, I lead a class discussion of their findings. At this point the debate begins all over again as the groups defend their rankings. As the debate continues, I lead students toward a discussion of the qualities or criteria for deciding if an action is heroic. As students generate ideas, such as there must be a real danger or serious consequences and a willingness to sacrifice for others, I list these on the board and have students copy them for the next step in the activity.

Students rarely agree on their rankings. As a result, a natural follow-up writing activity is to have students pick one of the incidents that the class is having a problem with and argue why the person’s action in the incident is or is not heroic according to the criteria the class has generated. In writing their compositions, I ask students to explain why the person’s action they picked is more or less heroic than the one or two other incidents that the class was unable to agree on. Another possible follow-up writing activity is to have students pick a real person or literary character such as Atticus Finch in Harper Lee’s To Kill a Mockingbird and explain why that person or literary character is or is not a hero based on the criteria that the class has generated in doing the activity.

In addition to giving students additional practice with all of the elements of argument, this activity helps students understand the abstract concept of heroism.

Before I have students write an argument totally on their own, I have them analyze a polished student-written model argument and critique and evaluate a few additional student model arguments (strong and weak). Furthermore, with each of the follow-up writing activities I have described, I would have students engage in peer evaluation activities of their classmates’ writing. However, it is important to note that having students read and analyze model arguments and evaluate the writing of others is not the core of my writing instruction for teaching argument and persuasion as it would be in many composition textbooks. The emphasis of my two to three weeks of instruction is on what Hillocks calls the “gateway” activities, or the sequence of inquiry activities that involves students in learning the thinking strategies or procedures that are essential for argument and persuasion.

Teaching writing through inquiry is not at all like the writing instruction that dominated most of the twentieth century, with its emphasis on teaching students to follow or imitate a form, primarily the five paragraph theme. Donald C. Orlich, et al. maintain that “Inquiry teaching requires a high degree of interaction among the learner, the teacher, the materials, the context, and the environment” (291). In terms of my goal of independence, these authors seem to agree with me and go even further. They argue:

Perhaps the most crucial aspect of the inquiry method is that it allows both student and teacher to become persistent askers, seekers, interrogators, questioners, and ponderers. The end result occurs when your students pose the question every Nobel Prize winner has asked: “I wonder what would happen if . . . ?” (291–92)

Transforming Writing Classrooms for the New Century

Just as the old industrial model is being replaced in the workplace, it can also be replaced in the writing classroom to prepare students for the challenges of the new century. The activities I have discussed teach students to think critically and solve problems. In addition, students learn how to work collaboratively with others, as well as independently, so that they will be well prepared for the world beyond the classroom. My experience and a growing body of theory,
research, and practice indicate that when composition instruction engages students in collaborative inquiry and problem solving, is sequenced to move from the concrete to the abstract with materials and activities, engages students in rehearsing the active processes of writing arguments, and moves from teacher-led work to group work to independent production, students learn the kinds of strategies and procedures that will enable them to be productive citizens now and well into this century. In other words, it can help students “see through the eyes, minds, and hearts of others” (Ramler 45).

Works Consulted


A former high school English teacher, LARRY R. JOHANNESSEN teaches at Northern Illinois University, DeKalb.
academic requirements, but the committee felt that because she is an unwed mother her character is in question and she is not a good role model (leader) for other students.

The rules of the National Honor Society state that “pregnancy cannot be the basis for automatic rejection,” but each school is allowed to set its own standards as long as they are applied consistently. The superintendent explained that Jennifer Dinesen is not the first student at Streamridge to be denied membership in the school’s honor society because of sexual activity.

As a senior, Jennifer has a 3.8 grade point average. She has been a member of the Spanish Club since freshman year and served as secretary of the club her sophomore year. She was a starting player on the junior varsity girls’ basketball team her freshman and sophomore years. During her junior year, she was in charge of decorations for the school’s homecoming dance, and she also worked as a volunteer four hours a week at a local day care center for disabled children. All of her out-of-school time during her senior year has been spent caring for her baby daughter. She has not received any discipline referrals in four years.

Jennifer says, “I’m deeply hurt by the school’s decision because I have worked so hard for four years.”

Questions
What is at issue are two qualities the honor society demands: leadership and character. As an unwed mother, has Jennifer lost her character? Will she lead others in the wrong direction? Do you agree with the faculty committee’s decision not to induct Jennifer Dinesen into the National Honor Society? Why or why not?

APPENDIX 2

The '95 Blue Chevy

At about 11:20 p.m. on August 31, three youths, all male, two Caucasian and one Hispanic, robbed an all-night liquor and food mart located in a high-crime area of the city. Threatening the proprietor with a handgun, the boys took several bottles of liquor and cartons of cigarettes as well as the cash from the register before escaping in a 1995 blue Chevy for which witnesses got no license number.

Four minutes later, after receiving news of the robbery via the police radio, Patrol Car 54 spotted a '95 blue Chevy that was exceeding the speed limit on the expressway five blocks from the scene of the robbery. Calling for assistance in apprehending armed-robbery suspects, Patrol Car 54 gave chase. Moments later, four police cars converged on the blue Chevy and forced it to the side of the road.

Officers, with guns raised, ordered three male occupants, two Caucasian teenagers and one Hispanic, out of the car with their hands in the air. The police immediately shoved the boys up against the police car and frisked them. As this was taking place, one of the boys demanded to know why they had been stopped. The officers made no response. No weapons were found on the boys, who were then handcuffed and ordered to sit in the back of the police car. Two officers checked via police radio on vehicle registration and on past police records for the boys. One of the boys did have an arrest record but not for robbery. While this was happening, other officers were searching the car. All three of the boys objected loudly as the police pulled the seats out of the car and removed items from the trunk, glove compartment, a school book bag, and a gym bag. One officer told the boys to shut up. A switch-blade knife with a five-inch blade was found under the driver’s side front seat. The police confiscated the knife, but when nothing else was found, the boys were allowed to put the car back together and go on their way.

Questions
Are the police justified in their actions toward the teenagers? Why or why not? Be prepared to present evidence and reasoning to support your position.