

CHAPTER four



Going Deeper with Writing to Learn

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Dear Reader,

How'd it go with the quick writes? Get some good ideas there? We hope so, and now here are eight more strategies for learning with short, informal writing. These are a little more involved and take a bit more time, but they offer even more applications.

Did you notice that we are writing you a little letter here? That's because many of the strategies in this section use written correspondence to deepen kids' understanding of subject matter. Enjoy!

Smokey, Steve, and Nancy

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Written Conversation

What It Is

Do your students love to write notes to each other, sometimes during the middle of your fascinating lecture? Ours do. We've also observed the vast adolescent postal system through which kids distribute those notes around the school. (Guess that's why they call it a "passing period" when the bell rings, because that's when they pass out all those notes to each other.) You've probably captured plenty of samples of these missives or found them discarded on your classroom floor. Most specimens of this genre are not very, uh, curriculum centered.

But they *could* be—and that's what written conversations, sometimes called dialogue journals, are all about. By legalizing letter writing and dragging it out of the gossip world and into our subject matter, we can capitalize on the kids' love of one-to-one correspondence to spark discussion of the curriculum. At Woonsocket Middle School in Rhode Island, Tonya Curt and Kara Alling have their students work in pairs, writing letters to each other as they read a book they have picked together. Today Jintana Souvannavongsa and Daniel Thipphavong are discussing pages 91–111 of Roland Smith's young adult novel *Zack's Lie* (2002).

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Dear Daniel,

Zack sure had a rough day at school. I can't believe Zack said Commander I. F. wasn't his, when Caitlin picked it up for him. I think Caitlin and Zack are gonna hook up. What do you think's gonna happen next? Zack is lucky he didn't get suspended.

I'm happy that Zack met a new friend, Darrell. Speaking of Darrell, I don't think his Dad really likes Peter. Do you think Zack's friendship with Darrell is gonna last? I think that Zack's going to tell Darrell about his father.

The author, Roland Smith, is a really talented writer. What do you think?

Do you think everybody in Elko really knows everything about everybody? That's creepy. Well, at least they don't know about Zack's "history."

I think Sam is with the witness protection program. He's like a stalker or something. He seems like an interesting person, though.

Have fun reading.

Your best buddie,

Jintanzi

Dear Jintana,

Haha, you're smart. I never thought that Sam could be a spy to check up on him. Maybe Caitlin and Zack is going to get together. Yeah, you're also right about Commander I. F. since it was from his Dad. I thought he would said it was his. Ha. I guess you can tell

Darrell's Dad hates Peter. For example Darrell's Dad: "I heard that you hit Peter. Is that true?" Zack: "I guess so." Darrell's Dad: "Good." Ha ha. I thought that was funny. Yeah.

After this book I know I'm going to the library to look for more of his books. Well I am almost out of time. Write to you later—bye.

Your friend,

Thipphavong

Many versions of written conversation have been cooked up by clever teachers all around the country, and the next strategy in the book is yet another powerful letter-based activity called the write-around. All of these epistolary WTLs have a common purpose. They are tools for engaging and discussing ideas. They replace or supplement the weaker kinds of discussion in the classroom—especially whole-class discussions, during which one person at a time gets called on and everyone else tries to avoid getting a turn. And interestingly, when we have written conversations, sitting side by side with our partners, we can all “talk” at once and it’s still *quiet* in the room. A final bonus of written conversations is that, unlike out-loud discussions that vanish into the air, letters leave artifacts behind that can be used or assessed later.

Play by Play

Getting Started

In Steve Keck’s class in central Indiana, the middle schoolers study ancient Roman life each year. In class today, they have read a meaty one-page article with lots of information about different levels, ranks, and occupations in Roman society. Instead of calling for a whole-class discussion, Steve asks kids to correspond with their dialogue journal partners about which role in Roman society they would most like to have and why. Trey and Brittany get into a lively written conversation about the merits of that occupation:

I'd like to be a gladiator because you get to kill people and animals. You also get a nickname and you'd be wildly popular.—Trey

*Trey, why would you do that? You would have at least a 50% chance of getting killed.
—Brittany*

No, no, I do not. I have a 0% chance of getting killed. Before they could kill me I'd stab them 5 times in the heart. I would because I'm better than all the others.—Trey

Trey, how would you be able to do that? You're not Achilles. So I highly doubt that you'd be able to stab them in the heart 5 times. My point is you're too skinny. A gladiator would break you like a twig.—Brittany

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While this exchange is funny, we can see how Brittany is drawing on facts from the article to counsel her impetuous classmate away from a brief career.

Managing Written Conversations

There are two basic kinds of written conversations: the “live” here-and-now type, where two people sit together and pass notes back and forth, and the take-away kind, which works more like a letter—one partner sends a note that waits somewhere (in a folder, journal, or classroom mailbox) until the receiver has the time to open it, read it, and write a response. Both are highly useful in the content-area classroom.

In the live version—like Trey and Brittany’s gladiator exchange—we tend to set kids up for short interchanges that eventually shift into a whole-class activity. Pairs of students sit face-to-face, writing and exchanging notes here and now. In early trials, the teacher usually structures things carefully, first by providing a common experience for everyone to react to (e.g., reading aloud a rich selection of literature, conducting a science experiment) and then by setting the pace of exchange, watching the clock and calling for note swapping at one- to three-minute intervals. This live version is especially good for training inexperienced student journalers to dialogue effectively.

In the take-away version, partners send each other notes that will be read and responded to over intervening hours or days, following an agreed-upon schedule. That’s how Jintana and Daniel’s conversation happened, as part of an ongoing reading workshop structure where students typically have a regular dialogue journal buddy and write to each other once a week. These take-away conversations offer the chance for writers to take a little longer and be more reflective, and they often lead to deeper sharing between kids. Nancie Atwell has pioneered this model, using what she calls *literature letters*, in her wonderful book *In the Middle* (1998).

Written conversation can be adapted to any subject, and it provides a quiet but energizing way to help students move into, through, and beyond any content, issue, text, or event. This is also a recurrent activity: once students have internalized a few simple rules and procedures, they can dialogue over and over—new content always makes the experience fresh.

What Can Go Wrong?

Written conversation, being a pretty natural human endeavor, tends to work pretty well. As in any pairs activity, you may find a few partners who don’t get along and you’ll have to make those routine interpersonal adjustments. And don’t make trouble for yourself by trying to read all of the kids’ conversations. You have to trust the writing-to-learn process; unguided practice works in all areas of life, including school.

Variations

The big variation in written conversation is joining in yourself. It is excellent modeling for you to take a student partner and join in on those short, live, in-class written conversations, just like everyone else. Then you can share your real, on-the-fly thinking and provide kids with yet another demonstration (they can never get too many) of how a proficient thinker operates. Bonus: as you work your way from kid to kid, over a period of weeks, you are also making a nice little personal connection with each one.

Then there's the idea of entering into long-term, take-away kinds of correspondence with students, either one kid at a time or with whole classes at once. Indeed, that's the very essence of Nancie Atwell's reading workshop model, alluded to earlier. "Whoa," we can hear you thinking, "there's a pretty big potential workload there." True dat, as the kids say. Later in this chapter (pp. 106–111) we talk at length about teacher-student correspondence, which we do strongly recommend, but with controls and cautions. But for now, let us just encourage you to join in on as many written conversations as you can without swamping yourself with too much incoming mail. You need to be able to respond with a free, generous, and open spirit, and no teacher with a stack of 150 dialogue journals to answer on a Sunday evening is likely to display this beneficent outlook.

In Houston, Texas, Sheila Newell's middle school kids have written conversations about poems, short stories, and brief news articles in a truly hands-on way. After picking a great short text, she blows it up to the maximum possible size that fits on an 8½-by-11-inch piece of paper (using bigger fonts on the computer or the "enlarge" feature on the school copier). Then she glues a copy in the center of a piece of chart paper, creating a piece of text with huge margins. She makes one for each group of four students, pushes four desks together into a "table," and lays one big text on top of each.

Then the kids sit down and start reading the text, usually picking one student to read it aloud. Next, each using a different-color pen, the kids begin a ten-minute written conversation directly in the margins of that great big page. (See Figure 4-1.) They can make comments, connect to particular phrases, draw arrows, speculate. As more entries go down on the page, students may start reading each other's comments and then agreeing, disagreeing, clarifying, and answering each other's written thoughts. When the teacher comes by, she hovers over the text, reading all the comments and uses her own different-color marker (purple, in Sheila's room) to write down a question that will spur kids to further discussion. Then she leaves to visit another group.

Sheila and her kids call this activity *collaborative annotation*; across the country others call it *text on text*. Whatever the name, we love the idea of kids diving right into the surface of some vital words, digging out meaning, making connections, and talking with each other (in writing) along the journey. The text, of course, is key to the success

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Figure 4-1 Students join in collaborative annotation in Sheila Newell's class.

of this activity. You need something short, complex, and central to the subject field. In a California social studies class, we saw a smashing version of collaborative annotation done with the Pledge of Allegiance. Students were stunned to see what they had actually been mouthing for a decade, and within minutes they were debating the meanings of *liberty*, *allegiance*, and *republic*.

Write-Around

What It Is

The write-around is one of the most powerful of all writing-to-learn activities, and it has an equally lively cousin called *silent discussion* that we'll introduce in the "Variations" section. Once you try them, these structures will probably replace some of the whole-class discussions now happening in your classroom, because they are more efficient and powerful.

In a write-around, a group of three to five students (four works especially well) write short notes to each other about a rich, complex topic assigned by the teacher. They jot comments, pass their papers, read what the previous student(s) have written, and add their own remarks, basically creating a string of conversation as the pages circulate around the table. Each student starts a letter, so at all times everyone is writing; there is no off-task time in a write-around.

Examples

In Nancy's American Studies class, the kids are studying the McCarthy era, the communist scare, and blacklisting. As part of the unit, she and team partner Kate Schwartz have shown the 1999 Woody Allen film *The Front*, which inserts a fictional character into a re-creation of the blacklisting hearings. Now it is time for a discussion of the movie and its big historical themes. Nancy and Joe want high engagement and accountability, so instead of a whole-class out-loud discussion of predictably mild impact, they elect to put kids into write-around groups.

After about ten minutes of quiet writing, the kids have created papers like this:

FW: I never knew what blacklisting was until now and I think it's terrible. I also don't see how the jury can ask Woody Allen questions like that and expect to get a straight answer. He can't and I know I would never rat out my friends and neither would he. Also why would it matter if he knew Hecky Brown? He's already dead so what good would it be to them to know? I thought it was interesting that Woody Allen just went off at the jury at the end. It was very brave of him!

BC: Seeing he was being questioned by the jury when he didn't even do anything wrong, then I don't think he should have to answer the questions. I think he did the right thing in the end. This whole thing reminds me of when a number of baseball

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players were chosen to speak to congress about steroids. It is basically the same thing. They were asked to give up names of their friends.

DW: Hecky was just another communist and they wanted to see if Woody knew him. I think that he just should have pled the 5th then he wouldn't have gotten into trouble. I remember the steroid case, and Mark McGuire answered just like Woody, saying "The past is the past and I'm here for the future." Not lying, but not denying either.

BC: Yes, but like Woody Allen, McGuire was accused of everything just by saying "The past is the past." And not giving straight answers to the jury. But going back to the Hecky topic, even though he is dead, if Woody was friends with him that means that he associated with communists. Now, in turn, he is labeled a communist.

FW: It makes me mad people would think this way. Just because you talk to someone doesn't mean you believe the same thing. If I talk to someone who is atheist doesn't mean I don't believe in God! See how ridiculous this all is! Why don't people realize this?

Keep in mind, in this three-member group there are two more papers like this one, each with different conversations about the topic.

This interchange shows just what we are looking for in any thoughtful discussion, oral or written. The kids are listening to each other, commenting and building upon each other's ideas. The conversation both deepens and widens as it goes on, making good connections to other times and places. Kids police the loose ends, going back to finish unanswered questions. And there's energy here, plenty of it. So when Nancy later calls the write-around groups back together, she isn't too surprised to find that people have tons to talk about. The ensuing discussion is half as long and ten times as valuable as the usual version.

Getting Started

The format is pretty evident: the kids sign in at the left margin with their name or initials, and each one starts writing an initial comment on the chosen topic until the teacher says "Pass!" Then papers rotate (in the same direction each time), kids read the entries on the page, and then write comments until the teacher calls "Pass!" again. And so on. In this particular class session, Nancy allowed lots of time for silent discussion—going from two to four minutes per turn, as the texts got longer and kids had more to read before writing their next comment.

But silent discussions can also be very short. Deb Evans' math class in Wolcottville, Indiana, reviews what has been taught in class using write-arounds with a half

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minute per turn, just enough time for jotting a sentence or two before passing. In the following exchange, a little dispute arose between Christine and Mike about the definition of an *open figure*.

Christine: I learned that if it is open, then it is not regular.

Blake: I learned that too and if it has sides that are not equal then it is irregular.

Mike: I don't remember learning that, Christine. I remember learning that if a side is open, it's an open figure. Remember? The dog could get out.

Christine: Well you must of herd rong Mike.

This slightly contentious exchange actually shows one of the useful features of write-arounds: kids can challenge and correct each other's misconceptions. Deb reports that Mike stood his ground on the definition of open figures and that group morale was quickly restored.

In both examples, we hope it's clear how much these students will have to discuss when they shift from writing to an out-loud discussion in their groups. And then everyone can join in a productive whole-class discussion, because every single student in the room has already been writing and talking about the topic for five or fifteen minutes. Talk about time well invested.

Play by Play

We've made these instructions very schematic because there are a lot of steps (though each one is simple) to follow. You will have to identify the topic that the write-around will address. Just make sure it is something complex, where interpretation is needed, where plenty of questions will pop up, and where reasonable people can disagree. You might choose to make the actual student instructions in the following plan into transparencies to use with the activity the first few times.

Instructions for a Write-Around

- ☞ Form a group of four, pull your seats together, and introduce yourselves or discuss the assigned warm-up question. *Threes or fives are OK, but push for as many groups of four as you can get. Yes, your kids already know each other, but we always believe in quick warm-ups, even with groups that have been together for a while. Learn more about this in Nancy's book Reading & Writing Together (2002).*
- ☞ Each person please get a large blank piece of paper ready to use. Put your initials in the upper left-hand margin.

☞ As we work, please follow these two rules:

1. Use all the time for writing.
2. Don't talk when passing.

You will probably need to reiterate these rules as you go along, especially with students who are new to write arounds.

☞ Ready? OK. Write for one minute. Write your thoughts, reactions, questions, or feelings about our topic, _____. *Fill in the blank. Keep time not by exact minutes and seconds, but by walking around and watching kids write. When most students have filled a quarter of a page, it is time to pass.*

☞ Pass your papers. Decide which way the papers are going to go and stick to it. *Here you should provide the instructions by saying:* Now read the entry on the page, and just beneath it, write for one minute. You can tell your reaction, make a comment, ask questions, share a connection you've made, agree or disagree, or raise a whole new idea. Just keep the conversation going! *Then walk the room, looking over shoulders to get the timing right.*

☞ Pass again, please. *Reiterate the instructions if needed, especially about no talking while passing:* Remember, we are having a **silent** discussion here!

Repeat and continue. Four writing times, total, if that's the number of kids in your groups. If there are mixed group sizes, no problem; the threes and the fives will still do four trades. Important: You need to allow a little more time with each entry because kids will have more to read with each successive exchange. Again, don't time this activity by actual minutes, but by watching how kids are coming and calling "Pass" only when most people have written at least a few lines.

☞ Now pass one last time, giving it back to the person who started the writing on this page. Read the whole thing over and see the conversation that **you** started. You won't write an answer this time.

☞ As soon as kids are done reading and start talking—and they will—say: OK. Please feel free to continue the conversation out loud for a few minutes. Use your writings however they help you.

☞ *Option: At this point, you can announce a more focused prompt ("Do you think that blacklisting could ever happen again in America? Why or why not?") and send kids back into their now warmed-up groups to discuss it. Or you can shift directly to whole-class discussion.*

☞ Let's gather as a whole class and see where this quiet conversation took us. Will each group please share one highlight, one thread of their discussion? Something you spent time on, something that sparked lively debate, maybe something you argued about or laughed about. Who'd like to share? *Now here*

comes the beauty part: there will be plenty of volunteers.

Don't forget that you now have two things to discuss—the topic you've just dug into and the process the kids have just used. It is important to reflect upon the activity itself, because you want this write-around tool to enter your kids' thinking repertoires for repeated use.

☞ Let's discuss this process. What worked for you and what made it hard? How could we make it better next time?

What Can Go Wrong?

This is a pretty sturdy and fast-paced strategy. As long as every kid has shared the experience to be discussed (heard the lecture, read the article, watched the film), it tends to work very well. Obviously it is vital that the topic be interesting, multifaceted, and debatable—including something that reasonable people can disagree about, probe, and chew on. $E = mc^2$ doesn't make a good write-around topic, but the book of the same name by renowned science writer David Bodanis (2004) surely does.

If you apply write-arounds to work that has been done outside of class, then you'll probably have a few unprepared students, who can be handled in a couple of ways.

1. Hold them out of the write-around so they can catch up on the work and no group will be saddled with a blank writer taking turns at their table.
2. Let unprepared students participate in the write-around by sharing whatever they do know for their first entry and then writing insightful and intelligent questions about other students' entries as they receive them.

Worried about kids with heinous penmanship? This is a case where natural peer pressure may work better than any teacher exhortations. In one Ohio classroom we saw a write-around partner toss another kid's scribbled paper across the table, saying, "Brian, how are we supposed to read this crap?" Ouch! But of course, you should try to head off such exchanges by warning about legibility issues from the start, encouraging kids to print if that works better.

Write-arounds are timed and pressured, in a way that's usually pretty fun. However, if you are a student who writes (or thinks) a little slowly, and you're sitting between a bunch of voluble, fluent writers, it can make you feel like a doofus. Some teachers do a little subtle grouping for write-arounds, arranging kids by writing fluency so everyone is about on a par. Still, we often feel that heterogeneous groups are fine. So what if I have eleven lines and you write two? You may have a much more important and discussion-worthy topic than me, and we each worked for the full minute before the teacher inter-
luded, "Pass!"

We glanced over the issue of group sizes earlier. We realize that by suggesting groups of four, we make it harder for you. Threes would be so much more convenient and maybe quicker. But that one extra viewpoint, that fourth voice, brings a richness that we have come to value. But your chances of getting classes that are groupable by four are only 25 percent (somebody check our math on that). Of course if you offer to put yourself in a group to make a fourth—something we highly recommend, especially for groups that need a little modeling or nudging—you can raise the odds to fifty-fifty (something really weird about that math). Just one warning: It is really hard to both participate in and conduct a write-around. You'll probably get sucked into the writing and lose track of time. So don't try that until you are a true silent-discussion veteran. Anyhow, threes work just fine and are easier to form. And we happily live with mixed-size groups.

Variations

You can have a silent discussion on just about anything that can be talked about out loud. Jan Booth's middle school students in Elgin, Illinois, receive copies of *Science World* magazine every month. Jan thought that adding an ongoing written conversation would enhance their enjoyment and understanding of the magazine's somewhat scattershot contents. Here is part of Katie Cai and Sara Kish's twenty-seven-entry conversation about one monthly issue.

KC: Did you read the passage about the giant squid? I thought that it looked quite gross. Especially the tentacles.

SK: Which passage? The one with the tank on the floor or its tentacle?

KC: The passage when it was talking about its suckers. Eww.

SK: OMG! That was so gross and it looked so slimy. . . . I think that drug overdose article is kinda scary ☹

KC: Yeah, it sort of reminded me about D.A.R.E. Why would anyone want to take drugs that they know can hurt them?

SK: I think that's the problem. Teens don't know that it can hurt them. I thought it was interesting that Saturn's ring raps around it many times.

KC: What do you think will happen when it winds tighter and tighter around Saturn? I think that the rocks might settle on the planet or something.

SK: I agree with you. . .

KC: Well, I have enjoyed talking—whoops—writing to you Sarah. I think we should do it more often ☺

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Our friend Jeff Wilhelm has a great variation on write-arounds called *silent discussion* (Wilhelm 2001) that does not require the small groups. After reading a piece of subject-matter text, or hearing a lecture, or sharing an experience, each student jots down two questions she has. These must be “big fat questions” that invite interpretation, discussion, and even argument, not closed-ended, factual recall items. Then students pass their papers in some direction—left, right, to the kid behind them. The receiving student must pick one question and write a comment or answer to it and then write down a third question, either a brand-new one on the topic or a follow-up to one of the two originals. Then kids pass papers again, in the same direction. The receivers read through all questions and answers so far and pick one unanswered question to respond to. Then they add yet another new question, and papers pass again. This can go on for three to five passes before the class shifts into an out-loud conversation that’s bound to be lively—and informed.

Carousel Brainstorming

What It Is

While traditional brainstorming focuses on jotting responses on a single topic, carousel brainstorming enables students to simultaneously share ideas and respond in writing to three or four different prompts. Use separate sheets of chart paper for each prompt and give each group of three to five students a different-color marker. Groups visit a station, discuss the topic written at the top of the sheet of chart paper, and add their own contributions, which are identified by the color of their marker. Then they move on to the next station, focusing on a new topic.

When to Use It and Why

Carousel brainstorming works best for introducing a new topic or actively involving students in review. Because of its out-of-your-seat nature and dependence on good student collaboration, this activity may work better a bit later in the year, once the students have developed good working relationships with one another.

Play by Play

Getting Started

Depending on whether this is an introductory or review activity, design three or four questions, headings, or statements that have the potential for eliciting multiple responses. Write each topic on a separate sheet of chart paper. Then either tape each sheet to a different wall area of the room or spread them out on the desks or the floor. The idea is to get some work space between the groups. Next form groups of three to five, and give each group a different-color marker. Send the groups off to the various charts with these instructions: "When you get to the chart, you'll have a couple of minutes to discuss the topic and brainstorm ideas. Remember that brainstorming means thinking quickly and in quantity. Write down all of the group's responses on the chart with your marker. Do not move to a new chart until I tell you."

When the two minutes are up, call time. Tell the groups to move clockwise to the next chart but wait for instructions. Once everyone is situated, say, "As you progress to each chart, your group's job is going to become progressively harder. First you need to read all of the other groups' ideas, and then you have to brainstorm new ideas to add. Don't repeat what another group has already written. Be sure to really think and talk about the previous responses because that is what will jog your minds and help you add to the ever growing lists. Also, make sure that you use a new recorder for each

station. Though your marker color identifies your group, I should see your color in a different handwriting on each chart."

Working the Room

As you already know, the potential for mischief increases when groups spread out and roam the room, so keeping an eye out is important. On the other hand, this is a fast-paced activity without much downtime. Plus, you'll be watching the clock so you can give more or less time as needed. Typically, by the time each group is on the very last chart, they're having a much harder time coming up with new additions since so much has already been written. At that point you'll either want to cut the time short or give the groups some hints that might send them down some different avenues of thinking.

Putting the Writing to Work

Once groups have returned to their original chart, there are several different ways to make use of all this writing.

- ⇒ Have each group reread all of the comments from its "home" chart and then report out to the class. Their brief summary should include how the ideas evolved from their initial thoughts (remember they were the first ones to write on that topic) and which ideas they think are the most important or have the greatest potential.
- ⇒ Engage in a "gallery walk," with each group moving through the stations a second time in order to read all of the responses to each prompt. During the walk, individuals can take notes on what they think are the three most important ideas listed on each chart. Afterward, have a short large-group discussion focusing on the selected highlights as well as what questions related to the topics have yet to be answered.
- ⇒ Have a *silent* gallery walk. Groups move through the stations again, reading but not talking. Then they return to their seats, spend a few minutes on a nonstop write (see page 92) in response to what they've read, and then finish up with a small-group or large-group share.
- ⇒ After the gallery walk or group presentations, have groups choose one of the topics on which to become experts. The first list that follows shows what three groups in a sophomore world cultures class were able to brainstorm about Afghanistan, on one particular chart. The second list shows the final thinking by a second group after reading a collection of nonfiction articles as well as the books *The Breadwinner* and *Parvana's Journey*, both of which take place in

Afghanistan. Expert groups can present their information to the class as well as compare their information with the initial brainstorming.

Afghanistan (initial brainstorm of three groups)

- ☞ Osama bin Laden
- ☞ sandy
- ☞ at war with United States
- ☞ lots of mountains
- ☞ hot weather
- ☞ camels
- ☞ had communism
- ☞ oil
- ☞ women wear cloth around their heads

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Afghanistan (further brainstorming after completion of reading)

- ☞ Taliban took over country but doesn't run it anymore.
- ☞ Life is very hard for women. Must wear burqas. Cannot work. Women expected to get married at a young age. Cannot go out in public without a man.
- ☞ Lots of landmines. At least 250,000 are victims of landmines. Many disabilities/injuries/deaths related to the landmines.
- ☞ Landmine victims are not accepted in society and cannot find work.
- ☞ Poverty stricken country. High rate of unemployment.
- ☞ 40,000 children work on Kabul streets to help support their families.
- ☞ Nearly 80 % of the country's women and girls are still illiterate.
- ☞ Heroin production is booming.
- ☞ No plumbing. People have to fetch water and boil it before drinking.
- ☞ Under the Taliban men were required to grow beards.
- ☞ A lot of refugee camps.

Though the latter was just a quick ten-minute summary brainstorm after the group had done its research, the differences in the two charts are striking. Whereas in the first chart students were guessing somewhat blindly, the second chart shows some real authority and detail in the information. Plus, the second chart shows that students were starting to understand the daily hardships many people in Afghanistan face.

Textbook Connections

Carousel brainstorming offers tremendous textbook connections. The topics or questions on the charts can be taken from key headings in the text, important vocabulary words, or the better problem-solving or high-order thinking questions at the end of textbook sections or chapters.

What Can Go Wrong?

Except for the intoxication of freedom that might ensue once students are released from their seats, this is an activity that usually works pretty smoothly. As mentioned earlier, the biggest problem arises toward the end of the brainstorming when everything has already been said. In that case, just cut the time short and move on to the next step, or give students some extra prompts or information that will inspire fresh thinking. Clearly, from our example you can see that the extent of students' thinking depends on the amount of knowledge they have acquired.

Variations

This activity can be adjusted for class size. For example, if you have a class of thirty and decide to use six groups of five, you have two choices.

- ☞ You can have six different stations. The advantage is that with more stations there will be more reading and more writing, thanks to more prompts. The disadvantage is that it's going to take more time to move the groups through all six charts.
- ☞ If you are looking for a shorter activity, use only three prompts but put them on six charts. That way each group moves to only three stations. Initially keep the identical prompts far apart so that all groups have the chance for original thinking. However, move the charts closer together for easier comparison in the gallery walk phase.

Double-Entry Journal

What It Is

Have you ever faced a big life decision—whether to take a new job, move to another state, go back to graduate school—and used a plus-and-minus or pro-and-con list to help you decide? If so, you're already a veteran of double-entry journals. Hey, we even know a woman who uses these handy little tools to compare two guys she's dating.

When to Use It and Why

Any time you have kids divide a page in half hotdog style (vertically), you are setting up a potential double-entry journal. Often we use double-entry journals as a form of note taking; this version is sometimes called *Cornell notes*. This structure enables students to do two kinds of thinking by recording ideas side by side in two columns on their paper. In the left-hand column go notes that outline information as students read, listen to a lecture, or otherwise take in information. The right-hand column is used to respond to or reflect on the information in some way. Though the writing can be done in words, phrases, sentences, and paragraphs (what we think of when we hear the word *journal*), notes, drawings, and symbols are equally useful, depending on the goals of the assignment.

Double-entry journals are very flexible. Within a unit, double-entry journals can be used to deepen text understanding, show the thinking behind problem solving, or compare ideas, information, characters, and so on. Here are some examples of possible column headings, but once you work with this strategy, you will think of many others.

COLUMN 1

Computations
Problem
Reasons For
Opinion
Quote from Text
Quote from Text
Quote from Text
Quote from Text
Agreements
Notes
Observations
Advantages
Words
Facts

COLUMN 2

Explanation of Thinking for Each Step
Solution
Reasons Against
Proof
Explanation of Importance
Personal Connections
Relations to Previous Unit
Discussion Questions
Disagreements
Interpretations
Inferences
Disadvantages
Images
Feelings

ENGLISH

For example, before reading *The Great Gatsby* in American literature, students watched a film adaptation of an F. Scott Fitzgerald short story. Before viewing, students developed a list of what they thought they knew about the 1920s. Afterward, they revised the list, adding new information, starring information that was confirmed, and crossing out items that were clearly erroneous. All of these notes stayed in the left-hand column. Several weeks later after finishing *Gatsby*, students revisited the early brainstorm, examining how those items reflected certain values of that era.

1920s—THE GREAT GATSBY

INFORMATION

Great Depression
Orphanages—people gave up kids they couldn't afford
Prohibition*
Organized crime
Charleston—popular dance*
Low wages
Fancy clothes—no casual ware*
Flappers—clothing style for women*
After World War I*
Women fighting for voting rights
Some people were very rich (new)
Transportation: cars and horses (new)
Local telephone service—no long distance (new)
Telegrams (new)
Spouses/partners deceived each other, cheating (new)

VALUES

Even though liquor was illegal, people broke the law and drank
Being up on popular culture and fashion was important
People were impressed by wealth
Women were trying to push the envelope—flapper fashions, voting rights
Most women did not work—expected to get married and be taken care of by husband
Cars were a status symbol
Wealth enabled some people to get away with more
Cheating on spouses was selfish

Play by Play

Getting Started

Decide on your headings, when students will complete this activity, and how you will follow up on the journaling. These notes can be homework, in-class work, part of a large-group discussion, or some other combination. Next, demonstrate the process. Have the students fold their papers in half (remember: hotdog) and label the columns. Model part of the note taking together so that students understand what kind of thinking goes in each column. Finally, tell students the ultimate purpose of this assignment. Will it be the basis for tomorrow's discussion, evidence of completing the reading, or something else? Once students understand the process and expectations, they can continue individually.

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Emma Barrientos
10.24.06
Inves 4.1
Journal entry

Knowledge

$$\begin{array}{r}
 \$20.00 \\
 1.25 \\
 .70 \\
 .15 \\
 + .08 \\
 \hline
 \$22.18 \text{ total}
 \end{array}$$

I added up the money to find the total amount of money.

$$\begin{array}{r}
 \$22.18 \text{ total} \\
 - 2.50 \text{ cost} \\
 \hline
 \$19.68 \text{ left over}
 \end{array}$$

Explanation strategy

I got \$.25 from 5 quarters because 4 quarters = \$1 and 1 quarter is 25¢. \$1 + 25¢ = \$1.25. I got 70¢ from 7 dimes 1 dime is 10¢ 10¢ x 7 = 70¢. I got 15¢ from 3 nickels. 1 nickel is 5¢ x 3 = 15¢. I got eight pennies. From 1 penny is 1¢ so 1¢ x 8 = 8¢. I change the words to numbers. I got \$22.18 by adding all the money.

I know that they want to know how much is left from Danny's total when she buy her ticket. Her total is \$22.18 - 2.50 the cost of the ticket that equals \$19.68 left over.

Figure 4-2 One student's math journal

Working the Room

Of course, if students are working in class, keep an eye out for confusion. The bigger part of monitoring, though, is when students begin to share their notes. Are their conversations quick and superficial, or are the kids moving beyond their initial notes, coming up with new ideas and returning to the text for clarification? If you aren't seeing enough of these deeper levels of thinking, then try doing a brief minilesson to model the kind of thinking you want to encourage. Worried about the time this will take? Remember, when you use this strategy, you are truly teaching your subject, and

the kids' deeper understanding will make a difference, even on standardized tests (see "What Can Go Wrong?" below for more on making sure the entries do indeed promote higher-level thinking).

Putting the Writing to Work

Double-entry journals are most useful in two ways. First, they provide a starting point for small-group or large-group discussion. Second, when viewed as a collection, they offer a record of one's thinking throughout a unit or book. When students view the journals together, it can be a good review for the test or excellent fodder for determining the topic of a final essay.

Textbook Connections

The great thing about double-entry journals is that they help students to read the text more thoroughly. Answering questions at the end of a section is often just a matter of skimming for key words. Looking for important quotes can mean searching through headings and bold print, but explaining one's thinking makes students go beyond copying from the text. In order to come up with the perfect two-column headings for notes from your textbook, answer these two questions:

- ⇒ What is the information I want students to notice and remember?
- ⇒ How do I want students to think about this information?

What Can Go Wrong?

First, if you assign double-entry journals (or any other out-of-class writing-to-learn activity, for that matter) for homework, there will always be one or two kids who'll try to copy the notes from someone else. This illicit shortcut can be minimized if students are clear on how the notes will be used the following day. If you're just going to check that they've done the work, that makes cheating more likely. If they are going to have to discuss, explain, and do further writing on the information in their notes, it's far more likely they will take the time to really do the assignment.

Second, it will probably take repeated modeling and follow-up to get the kids to make their thoughts detailed and specific. Many students will have no trouble copying a quote from the text, but then in the "What You Thought" column they'll write a quick cryptic response like "Wow" or "That's surprising." Students need to learn to expand and explain the thinking behind the "Wow." The more opportunities the students get to talk in depth about their thinking, the faster this transition will happen.

Another way students will try to shorten their work time is by grouping all of their reading responses within the first few pages of the assignment. Not that clever, really.

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So you may need to dictate that responses need to be drawn from throughout the reading. And then, to make expectations even clearer, give the kids a minimum number of entries needed—perhaps for the minimum possible grade? Your call!

Finally, the value of these notes is often cumulative, so be sure to devise a system for students to organize them. They might be contained in the learning log we describe at the end of Chapter 3 (pages 65–66).

Variations

If your students take notes on a regular basis, have them place their two columns of notes only on the right-hand pages of their spiral or composition book. Then, before a test, have students read through their notes, using the blank pages on the left-hand side as a third column to jot down questions, ideas for remembering the information, and other thoughts pertaining to the material.

Though quite useful when students are in the midst of content study, double-entry journals can also be combined with an initial brainstorming activity. For example, when students reached the point in *To Kill a Mockingbird* when Tom Robinson is killed trying to escape from prison, they could brainstorm all of the possible solutions Tom could have tried in addition to trying to escape. Later, after reading about Jim Crow laws and watching a film about the trial of the men who murdered Emmett Till, students could return to their lists and predict the likely outcomes of the solutions they proposed.

POSSIBLE SOLUTIONS	OUTCOMES
Wait for Atticus' appeal	Unlikely that appellate court will be any more sympathetic than Maycomb jury.
Get a new defense lawyer	Unlikely that any other lawyer would ever take this case since Tom is accused of raping a white woman. Plus, Tom has no money to pay for a lawyer.
Write letters to reporters about wrongful conviction	Letters will be ignored.
Write to governor for a pardon	It would be political suicide for the governor to pardon a black man accused of raping a white woman. Plus, blacks are treated as second-class citizens.
Complete sentence and return to family	Strong likelihood of being lynched if Tom returned to the community.

POSSIBLE SOLUTIONS, cont.**OUTCOMES, cont.**

Escape from prison

Mistreatment in prison a strong possibility; Tom saw no other solutions than escape or death in trying.

Example

Tired of the kids trying to catch a quick forty winks when you roll the videotape or DVD? Two-column notes are an excellent way to keep them awake and focused while also providing nutrient-rich fodder for postfilm discussion. The two-column notes in Figure 4-3 were used in an American history class as students viewed the film *The Atomic Café*, part of a study of the cold war.

The Atomic Café

Name Nick Nevins

Date _____ Hour _____

DIRECTIONS: This movie is a collection of archived imagery compiled from film shorts, many originally produced by the United States either for military training or to inform the civilian population. Most of these films were made in the early to mid 1950's. This film has very little narration; therefore, you need to pay close attention to the visuals. As you watch, take notes on what you see that stuns or surprises you. After viewing for the day is complete, go back and explain what you were thinking. Why did these visuals stand out to you? How does what you've seen connect with the Cold War information we've read and discussed?

Stunning/Surprising Visuals Or Ideas

Response To Visual:

- 1 This makes me think about...
- 2 This stands out to me because...
- 3 This makes me wonder...
- 4 This connects with the Cold War...

"Beautiful" explosion

"Harmless" radiation

● Bad Acting

Dick & Lover

Fall out shelters

* Adaction + Tranquilizers in shelter

2. Its not beautiful, its a weapon of mass destruction

1. if the US would care about troops that were exposed to radiation

3. if I could see that there is bad acting in this film how could others seeing this take it seriously

2. ~~because~~ it seems so cheezy

4. because many people were so frantic about it that they built Fall Out Shelters

1. realistic this movie is, its so non-

Figure 4-3 Nick's two-column notes on The Atomic Café

Nonstop Write

What It Is

A nonstop write is a timed writing, usually between three and five minutes, in which students are asked to respond to a prompt. This might be a specific content-related prompt: "Describe the cycle of photosynthesis as if you were a plant." Or the prompt might be something much more open-ended: "What were your reactions to the film? What did it make you think about?" In either case, students respond in sentences and paragraphs, writing quickly and continuously, focusing primarily on presenting ideas rather than stopping to ponder the spelling of a puzzling word. As with brainstorming, the goal of a nonstop write is to get lots of thoughts down in the given time. Spelling, punctuation, and other conventions are de-emphasized during nonstop writes.

When to Use It and Why

Nonstops are very versatile and can be used throughout the study of any content. Students can use their writing to explore ideas about a subject before studying it, or they can read some text and then respond to the information. In addition, students can use nonstop writes in order to trace changes in their thinking about a subject and recognize the depth of their learning.

Play by Play

Getting Started

In the beginning, students might have difficulty sustaining their writing over several minutes, so it's better to start with only one or two minutes and then work up to five to seven. Also, at first some students will have difficulty responding quickly in writing. They'll run up against the wall, not being able to think of anything to write about or running out of ideas before the time is up. After explaining the writing prompt and the need to keep writing until time is called, you can alleviate writer's block by giving partners a minute or two to talk and brainstorm about the topic. Follow this with a quick class brainstorming list written on a chart or overhead. Before having the kids write, let them know how their papers will be used. Will you be collecting them to read? Will they be reading them aloud to their partners? Will their small group be pooling the important points from their individual papers into a final share? Once students are clear on the concept, call for silent work time while students get down to business.

Working together

As students work together, they can share their ideas and provide feedback on each other's writing. This can be done in a variety of ways, such as having students read their writing aloud to their partners or having them share their writing with the class.

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Putting the Writing to Work

Students will take their writing and use it in a variety of ways. They can use it to share their ideas with their partners or the class. They can use it to connect information to their own experiences. They can use it to discuss the topic and share their thoughts. Putting their writing to work in these ways can help students to learn more about the topic and to develop their writing skills.

Working the Room

As students write, you need to watch for one main problem: students who write a couple of sentences and then shut down. This happens for three main reasons:

- ☞ Putting thoughts onto paper quickly is a skill that takes practice.
- ☞ The continuous writing of sentences and paragraphs takes more effort than brainstorming a quick list.
- ☞ Continuing to write for five minutes requires the writer to expand on details or move on to new topics when a previous one is exhausted.

The quickest response to a shutdown is to say, "You have two minutes left and some space left to fill. See if you can add some more examples to an idea you already wrote about or look up at the overhead and start writing on a second topic." As students become more practiced with this writing strategy, they will become more skilled at getting their thoughts down on the page and using the entire time for writing. So it's a good idea to use this strategy frequently for a while, to build up kids' perseverance. Keep in mind that this is good training to help students do well on timed essay tests, too. Consider perusing the language your state or district uses in its writing prompts. Though the retired topics may not fit your content, wording your own prompts similarly to those that students will encounter in high-stakes tests gives them a comfortable familiarity with a prompt's style and inherent requirement for a specific type of response.

Putting the Writing to Work

Students will take these timed writings more seriously when they know the task will be used for something other than just five minutes of writing. The next step depends on your goal. Many times we have students write to remember information but also to connect information and concepts to their own personal feelings, ideas, and responses. Therefore, sharing these writings with others is an excellent springboard for discussion. Reading aloud and discussing their writings in pairs is an easy way to share. Putting students into groups of three or four takes a bit more time, but sharing more viewpoints enables the kids to begin to trace common threads of thought within their individual writings as well as recognize divergent viewpoints. In either case, pairs

☞ Want to Jump Around?

We've just suggested that nonstop writes can be great practice for high-stakes, on-demand writing situations that students now face on college entrance exams and state assessment tests. If you want to learn more about preparing kids for those challenging occasions, jump ahead to pages 253-268, where we devote a whole chapter to helping kids score well on such pressured and important writing.

or groups should be responsible for some final reporting out since a little bit of accountability will help keep the discussion content specific.

Like the double-entry journals, nonstop writes have a significant cumulative effect because they offer students the opportunity to examine their own writing and ideas over time (Graves and Kittle 2005). After students are finished writing, have them go back and reread their page, examining their text for specific attributes and marking accordingly:

- ⇒ Which sentence in your writing really explains what you're writing about? Underline it.
- ⇒ Which parts give specific examples or details related to the sentence that you underlined? Put brackets around these parts.
- ⇒ Which sentences don't say much or get off the topic from the sentence that you underlined? Draw thin lines through these.
- ⇒ Find the three words you like the best—words that sound great aloud or words that really create a picture in your head. Circle them.

Guided rereading helps kids improve their revision skills and recognize the good parts of their writing, attributes we want them to consciously consider when they are writing for audiences beyond themselves. As students expand their collection of nonstops, they will be able to trace specific improvements and mastery.

What Can Go Wrong?

As mentioned earlier, kids who shut down and those who just don't write enough are the two biggest problems with this strategy. Most kids will outgrow these roadblocks as they become more practiced. After two or three of these sustained writings, have the kids reread their entries and do a little self-evaluation. First have the kids complete the following three steps.

1. On a scale of 1 to 5, rate how quickly you get off the mark and start writing.
2. On a scale of 1 to 5, rate how well you keep writing for the entire time.
3. Count the number of words in each entry.

Then say, "From now on, full credit for a nonstop write means writing at least 150 words [this number has worked well for us, but the length of the writing is up to you]. Take a look at your word count. What do you need to start doing differently in order to meet this goal? What do you need help with? Take a minute to jot down your answers." After the writing, discuss solutions to the problems and then end with each student

developing a one- or two-point action plan that will result in improved quantity and quality in future efforts.

Example

Before beginning a unit on westward expansion and how it impacted the lives of Native Americans, American history students spent five minutes writing about what came to mind on the topic of Native Americans. Later in the unit, students will return to their initial pieces, examining them for stereotypes and information gaps before writing again on the topic, highlighting their new knowledge. Here is what Christina wrote at the beginning of the unit.

When I think of Native Americans, I think of tee-pees and headdresses. I think of tee-pees because in almost every movie Native Americans are in you see tee-pees around a fire. I also think of headdresses because again—the movies. Whenever I see a movie with Indians in it, they are wearing headdresses. Native Americans are usually associated with horses; they ride horses everywhere. Also, Native Americans are associated with Pilgrims. I think of the first Thanksgiving—hunting and fishing. If it wasn't for the Native Americans, the Pilgrims would have had a tough time surviving. They probably would have starved and froze. The Natives taught the Pilgrims that when they hunt to use not only the meat but the fur for clothes or housing. The Native Americans helped with many things. They discovered the land, helped the Pilgrims, and still lived in tee-pees around a fire. Native Americans are amazing. They are very resourceful in many ways.

You can easily envision how Christina's initial knowledge about native Americans will be challenged and revised as the unit unfolds.

Reflective Write

What It Is

Philosophers tell us that one of the things that most separates humans from the rest of the animal kingdom is our awareness of ourselves. As educators, a central part of our job is to help young people become more conscious—of what they are learning, how they go about learning it, and what the learning can mean to them. So once an assignment or project is completed, whether it involves writing or not, it's a good idea to ask students to reflect on their learning and on the task itself. The activity involved may be just about anything the teacher has arranged for kids to do: a single in-class discussion, a field trip, a small-group collaborative task, a lab experiment, a newly introduced algebra operation, a big monthlong project. The reflection may be informal, a brief in-class jotting on a note card so students can quickly record thoughts on what they've learned and how they went about learning it. Or it can be a full page that the kids write down as quickly as possible, like the nonstop write described previously.

When to Use It and Why

Obviously, reflection comes at the end of a task—or if it's for midcourse corrections, far enough along that the student can think about where she's headed and how she's doing. Reflective writes serve a number of purposes. While some students approach school as nothing more than a series of work tasks to be done as quickly and painlessly as possible, turned in, and forgotten, reflection invites them to pause and take note of what they've learned and how they went about it. It helps install learning more fully in students' minds, places it in a larger context, and asks them to value it more deeply. Students begin to recognize the strategies they use for learning—particularly if the teacher has talked about these—and to realize their strengths and plan ways to improve in the future.

Reflection in the middle of a longer project can help students self-correct their effort and encourage themselves onward. At midstage it can reveal which students are on track, which need a little help, and whether any are in deep difficulty. Reflective writes give the teacher a great deal of information that often cannot be seen in the final product itself. At the end of the work, a teacher can learn what came easy and what was hard for students, how deeply they understand the concepts that were taught, and how they have connected the learning to their lives.

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Student Sample: Reflection on a Family History Project

In Saline, Michigan's middle school, Suzanne Brion's eighth graders engage in an interdisciplinary project connecting family history and twentieth-century formal history, through family interviews and research on "events and people who changed the course of history during the time of our ancestors." Students conclude by writing reflection pieces like this one:

Throughout this project I have dug deeper into my family roots than ever before, for school and for amusement. I have interviewed family members thoroughly. My parents are sick of me. I've been all over them asking questions—lots of them. Anything I could think of I said; I reeled them off, one after another after another after another. Well, you get the point.

I started with my ancestral interview where we had to interview a grandparent or elder relative and find out how he or she lived their life. I chose my Grandpa Nagle because he was born in a different country and I don't really mind talking extensively with him. So, I reluctantly called him in Florida, and prepared for a boring grandparent story: the ones with the stuff in them like, "When I was your age I *walked* to school..." Surprisingly, it wasn't that at all. It was enjoyable talking with him about his can-kicking days in Ireland and his cozy Cork (Ireland) home filled with family singing and bumbling all night. He even made me laugh (really)! All in all, I'm glad I had to, and I think I might do it just for "kicks" once in a while.

The interview *paper* was a different story. No one likes to write papers, but this one didn't seem too bad. Mine was long enough to go into detail, but short enough to keep the interest of the reader.

I have never had in-depth units on researching and writing for research papers, so this year has been an eye-opener with our I-search paper and now the public history paper. I have never been efficient when researching and this time was no different. It was very confusing and I didn't even understand what to research until well into the project. By then, classroom research was out of the question and the homework load grew. But I got my act together and decided on some major twentieth century events. Afterwards, I guess I mustered up a well done paper and hey, I learned some stuff too.

I admit the public to family history connection was easier. A paragraph or two on four different events with some pictures here and there, voila! Plus, presenting has always been a strength of mine.

My favorite part of the whole thing was the interview. It was fun, educational, and I spent some quality time with my Grandpa. I'm glad I did the project, and I can't wait to include it in my ongoing autobiography.

SOCIAL
STUDIES

Play by Play

Getting Started

Students who are new to conscious, school-focused reflection are likely to need some direction from the teacher. They need to see what sorts of issues can be addressed. They may not realize that it's worthwhile to look at the steps they took as well as the understandings that emerged, or that by noticing both their strengths and weaknesses, they can figure out how to do better in the future. Looking at a mistake as an opportunity to learn and improve, rather than an embarrassment to be hidden, is something we could all learn to do more gracefully. So it's a good idea for the teacher to describe to students a learning task he has undertaken and then write a reflection spontaneously, projected for the kids to see. Alternatively, Suzanne Brion shows students a variety of reflections from previous years. She includes weak as well as strong ones and shows various formats that students use, as well as issues they cover. Students can then write a brief reflection, themselves, perhaps on a simple, physical task she has them do on the spot. Comparing these together can further help the kids see some of the different ways they can reflect.

Working the Room

It's a good idea to have kids write the reflections right in class—or if time is short, at least get started there. This not only helps make sure the work gets done but also allows you to circulate and take a quick snapshot of whether the students understand the task and are getting into it. If just a couple of kids are struggling, quick individual conferences may get them on track. If most appear confused, it's probably time to pause and review the task, ask students to discuss it as a whole class or in pairs, or do some more modeling.

Putting the Writing to Work

Sharing reflections is especially valuable for reinforcing learning. Insights from some students will help others realize they were thinking the same way—or that they can try something new in the future. After reading over the reflections, you can pick out key ideas that are important for all the kids to hear and copy excerpts for all to read. And when the students keep their work in a folder, they (and you) can periodically review it and write reflections to gain a longer-range view of their efforts. Often, kids don't realize that they really are learning a great deal, and reflecting over time can help them gain confidence and give direction to their school lives.

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Textbook Connections

Most teachers would like to see their students make better use of the expensive and weighty tomes they must plow through. Whatever the limits on many textbooks, they are tools that most subject-area classrooms use extensively. So thoughtful teachers often provide guides and activities to help kids navigate them more successfully—showing how to spot key concepts, vocabulary words, definitions, headings that signal new or important shifts in focus, and so on. We can help students learn to use example problems, glossaries, and review questions. But it's not unusual for students (and most of the rest of us, as well) to sometimes tune out and read robotically, realizing at the end of a reading session that they recall nothing from the words they buzzed through. So we can help them to pause, review, question, and digest. Obviously, reflective writes, particularly brief ones after short stints of in-class reading, can make students more conscious of what they've understood or where they were confused, how a particular reading strategy helped, or whether they need to try something else. This is note taking not as a mechanical jotting of information but as a thinking response to ideas.

What Can Go Wrong?

Students need enough time to think and enough material to wrap their minds around if reflection is to be meaningful. Conversation among peers also helps. So even though time is always tight, be sure to leave enough for reflection to really develop. If you observe that many students are not thinking very deeply, you may need to provide more direction or more modeling, demonstrating the specific kinds of thinking you want kids to try. Scheduling class time to write reflections gives the teacher more opportunities to give guidance. It also helps ensure that parents don't do too much of the work for their kids.

Some students who are really struggling, or perhaps having a difficult time in their home lives, may find it hard to reflect on their work. This is where in-class writing workshop (see Chapter 8), with time for one-on-one conferences, is especially valuable. You may need to take a few minutes to walk a struggling student through some of the thinking about what he *can* do well, or help him focus on just one or two things he might try to do better next time and some specific steps that will help him achieve.

Want to Jump Around?

Double-entry journals are a great tool for housing the kind of reflection we describe here. Consult pp. 85–91 in this chapter to consider how that strategy and this one can be combined.

Variations

MATH

Short in-class reflections can be as useful as longer think pieces. In this sample from Saline Middle School, student Chandni Patel reflects on an activity in which her math teacher, Heather Meloche, had kids create their own quizzes:

I thought writing this quiz was interesting. After I wrote it, I felt how a teacher feels writing one.

The thing I would change about my quiz would be that I should have made the questions come out as an integer on the answer instead of a decimal. This way it'll be easier for students next time.

Writing this quiz was an awesome experience for me to try. I would like to do more projects like this, and I would also like to help sometime to make questions up for a quiz/test. I am glad I got an opportunity to make a quiz up which seems to me like a real one you would give students.

KWL

What It Is

This elegant and well-known strategy uses brainstorming and listing to drive kids' thinking all the way through a unit. The acronym stands for What do you **know**? What do you **want** to know? and What have you **learned**? KWL writing includes a series of lists made by individual students, small groups, and the whole class, with the teacher serving as the recorder for the latter. These jottings are used before, during, and after the unit is taught, and they help to surface, steer, and monitor students' learning.

We were actually tempted to leave KWL out of this book, because its use is already so widespread. But we changed our minds—and not just because the developer of KWL, Donna Ogle, is a friend and colleague. When we started asking middle and high school teachers about KWL, we encountered a lot of blank looks. We discovered that although elementary teachers across the country have really taken KWL to heart, its value has not yet been as widely recognized by secondary teachers. If you're among those new to KWL, you have a very practical addition to your teaching repertoire just ahead.

When to Use It and Why

KWL works best when students have a little prior knowledge about a topic. If you think about it, our curricula include many such subjects, like

asteroids	probability	Shakespeare
global warming	graphing	persuasive essays
waves	improvisation	right triangles
Impressionism	parts of a cell	manifest destiny
the Gettysburg Address		

KWL embodies the principle of cognitive science that learners can build new knowledge only upon what they already know, including misconceptions and fragmentary information (Hyde 2006). So, before you launch a unit, you intentionally activate students' prior knowledge, helping them to list and discuss it. Next, kids pose questions about what they want to (or expect to) learn during the unit. After a period of study that may last days or weeks, students use even more listing to review what they have learned. This multistep use of informal writing pulls kids into, through, and beyond the subject matter, as the teacher adds in information and arranges experiences.

Play by Play

Getting Started

Let's say you are about to begin a unit on photosynthesis. Before assigning any reading or presenting any information, you set up a KWL. Have students get out a blank piece of paper and say:

Write down whatever you know or think you know about photosynthesis. You've probably heard the word before, maybe even studied it when you were younger. Now just jot down anything that comes to mind—words, phrases, sentences, a list. Go.

When students have jotted for about one minute, or long enough that each student has at least three entries on the page, call for a whole-group discussion. You serve as the scribe on a flip chart (preferable, for hanging up later) or overhead transparency divided in half vertically, with a big *K* over the left column and a *W* over the right.

Ask volunteers to call out facts or ideas about photosynthesis, and list them under "K" using the kids' own words if possible. It will look something like this.

What We KNOW About Photosynthesis

something to do with plants
green stuff
chlorophyll
makes oxygen
releases carbon dioxide
formula CH something
energy
it's how plants breathe
roots suck up water
how the sun feeds
it's a cycle
like plants eating

What if kids volunteer incorrect ideas? This is the hard part for a dutiful teacher. Right now, you are simply surfacing kids' conceptions and misconceptions; the content of the upcoming unit will remake and correct these. This part is just the warm-up, the activation. But if it feels too weird to put "involves some red stuff" on the "K" photosynthesis list, it's OK for you to put a ? beside the entry. Indeed, if kids dispute or correct each other, a question mark can go next to the contested ideas as well, as you say:

OK, you guys, we have some different ideas about this, and over the next couple of weeks we'll be finding out what the real deal is. So let's just put a question mark here and move on.

You'll see in a minute how quickly these question marks get put to use.

Only ten minutes gone in the period, and it's already time to get kids to turn their prior knowledge into questions about the upcoming photosynthesis unit. Here's what you say:

Now, working in groups of three or four, please make a list of questions you have about photosynthesis as a result of our work so far. Looking at the list we have made, you should be able to think of three or four. And remember, you can always pose questions about the topics we disagreed or wondered about. Go ahead.

Let kids work in their groups for two to four minutes—however long it seems productive.

Now, reconvene the whole group and solicit entries for the "W" column on the flip chart. We often instruct the group:

If somebody mentions a question you are wondering about too, nod your head so we can see that more than one person is interested.

We also try not to censor or edit too much; between the goofball questions there will be plenty of bread-and-butter topics that can frame the photosynthesis unit you're about to teach. The class might settle on something like this:

What We WANT to Know About Photosynthesis

Is photosynthesis a form of eating, for plants?

How does photosynthesis affect people and animals?

Can it happen in the dark?

Is chlorophyll the same stuff they put in gum and mints?

Does photosynthesis give off good or bad gasses?

Could we get electricity from plants?

Does photosynthesis stop in the winter?

Do plants have to be green?

How does water fit in?

See? Most of the questions these kids have raised are perfectly relevant, if not comprehensive—and you see that experiences you've got planned for the next few days will probably work just fine in answering their questions.

With KWL, this will happen most of the time. The structure usually engineers a situation where the kids are asking us questions that we were going to address anyway! But just because the outcome is predictable doesn't mean the process isn't sincere—and powerful. KWL puts kids' existing knowledge into the foreground, makes them active, and engages them in coplanning the unit. The dynamic of this fifteen minutes is *totally* different (and cognitively much more advantageous) than us saying: "Take out your notebook. I'm going to start lecturing about photosynthesis."

Putting the Writing to Work

Now the unit can proceed pretty much as usual—we hope with plenty of other practical writing activities (admit slips, double-entry journals, whatever fits the topic best). You just hang that KW chart on the wall, making a point to return and check off questions as they are answered.

As the unit comes to a close, it is time to make the L list—what we learned. This can be a nice, ceremonial wrap-up to an important unit—and once again, it gets kids thinking about their thinking and running their own brains. Get all the lists and charts up, and go back to the K's and W's, reviewing where you started and what questions were posed. Turn key learnings into statements in the "L" column; often these will derive directly from former W list entries that were crossed off somewhere along the line. Smart teachers finish off this review by making one more list: Now that we have studied photosynthesis, what *new questions* do we have about the process, about plants, or about life processes in general?

What Can Go Wrong?

Well, if you ask adolescents, "What do you want to learn about manifest destiny?" they're going to shout out in unison: "Nothing!" Or at least they'll think it. So if you anticipate that kind of resistance in your group, just swap the language around and say, "What do you predict we will learn in this unit?" This takes a bit of the volunteer spirit out of the transaction, but at least it's not throwing red meat directly to the class cynics.

KWL works well for a broad array of topics, but not every one. We do teach topics in school about which kids really have little prior knowledge, that hit them cold. Quadratic equations, vectors, and other math topics seem to come out of the blue, even though they are usually outgrowths of previous content. So appraise your kids before leaping into a KWL. For those tough topics, it is *our* job to fill in some information first, using the writing activities along the way rather than at the very outset.

Some teachers think KWL can be overdone, that kids get tired of the structure if you use it over and over again. We feel torn about that. Yes, kids (and adults) do crave novelty, and to some extent it is always OK to spice things up with new activities and

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tools. And yet KWL is so basic and pure we don't think it should ever be treated as a fad. All the structure does is externalize what goes on in the mind of a powerful learner who is encountering a new set of concepts: you connect, you question, you add information, you readjust your thinking, and you set goals for more inquiry. That's a universal process that never gets old!

Variations

At every step of the way, when kids are making a K, a W, or an L list, there are plenty of choices for how to work. In our earlier example, we had kids make K lists individually and then go straight into a whole-class listing. But it's often valuable to put kids into small groups (as we did in the W phase, later) as an intermediate step, telling them to compare their personal notes and come up with five things they agree upon about photosynthesis to be reported to the whole group in three minutes. This tends to root out some of the loonier (but sometimes more amusing) ideas, and it gives kids more active airtime and responsibility along the way. The tradeoff, as always, is that each extra step takes time—but remember our mantra, *going deeper into a smaller number of topics*. The kids will learn photosynthesis better!

There's a nice variation to add after making a W list, which Donna Ogle (Carr and Ogle 1987) calls a KWL-plus. Once kids have compiled a list of questions about photosynthesis, they try to figure out where they could look for the answers to the questions they have posed. Of course, everyone will quickly blurt out, "The textbook," and that's an important source. But smart teachers remind kids: "OK, but there are other sources, too. Keep thinking." Here's what one group of Chicago kids came up with:

Where Could We Get Answers About Photosynthesis?

- Ask Mr. Griffin.
- Look in *Discover* magazine.
- Do an experiment.
- Ask somebody who has a garden.
- Go to the arboretum.
- Search the Internet for articles.
- Google "photosynthesis."
- Read a book about plants (botany).
- Interview a farmer.

Teacher-Student Correspondence

What It Is

What would you say if we suggested that you develop an active correspondence with all your students, writing letters back and forth to them all year long? Probably you'd say, "I *knew* these guys were nuts!" Give us a minute.

Many elementary teachers regularly exchange personal notes with their students, sharing news about classroom and family events and chatting about books the children are reading. This simple adult-child correspondence allows the teacher to model good writing, to create a just-right text for each child to read, to see and assess each student's writing skills, and get to know the student personally—an elegantly productive use of a few minutes. And when you teach the same twenty-five little kids all day long, most of whom can write only a few lines, this is a manageable as well as powerful activity.

Very nice, but this doesn't sound possible with our big kids. After all, we see more than a hundred of them for just an hour day, and we have sixteen tons of content to deliver. Well, you haven't met Angela Andrews, a high school science teacher who *does* find the time to have ongoing written dialogues with all her students. You're about to see how she is working smarter and her students are learning better as a result.

On this activity, we'll give you a challenge and a promise: No matter what you teach, you should try writing letters with your students a few times a year, spending just ten to fifteen minutes of class time on each round. The benefits will be higher class morale, deeper understanding of the material, better-targeted instruction, and a more personal, meaningful relationship with your students. Talk about differentiation. This tool helps you know, reach, and teach every kid as an individual. Indeed, we think that written correspondence between kids and teachers may be the most neglected and potentially powerful teaching (and classroom management) strategy of all. There are lots of teaching ideas in this book, and this one may seem the most unlikely. But these letters can change *everything* in your classroom, quickly and deeply. Teachers who have adopted these letters invariably say: "How did I ever teach without them?"

Play by Play

Getting Started

Angie Andrews teaches chemistry to juniors and seniors at Elmwood Park High School, in an inner-ring suburb of Chicago. Her students are a diverse bunch, as the once-monolithic Italian immigrant community is now being infused with Polish and

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bunch, as the
ith Polish and

Mexican newcomers. Angie's student load is 130 kids per year, much like teachers around the country. But unlike most science teachers, Angie exchanges personal notes with her students about once a month, in an attempt to get to know kids better and to teach them more effectively. Here's how she does it—and why.

"The first time we do this in September, I just give them the first fifteen minutes of class," Angie explains, "and I keep the topic pretty open. I say:"

Tell me what's going on with you in chemistry class—how are you doing with the ideas, the homework, the tests? What can I do to help you learn this material better? How are your other classes coming? What else are you up to in school this year—any clubs or teams? How about your life outside of school, anything you want to tell me about? Now, please stick to appropriate topics and language. I don't want to hear about your partying on the weekend—I'm not trying to be your buddy here. And if you tell me anything about someone being at risk or in danger, I will contact the appropriate other adults—social worker, counselor, and so on. OK? Take ten minutes.

Angie reports, "The first time we do these dialogues, they always ask me: 'Why are we doing this?' And I say, 'Look, there are twenty-eight of you and one of me, and I've only got eighteen weeks in this semester to get to know you—so I can be a better science teacher for you.'" Angie laughs as she recollects: "Some kids will actually gasp out loud when I say that; they just go, 'Wow.' Sometimes one kid will say something negative, like, 'This is stupid.' But someone always pipes up and says, 'Shut up, she's just trying to help us, you jerk!'"

After the writing time is up, Angie collects the letters and presses on with the chemistry lesson. Later, during a free period, she starts reading them through to see the range of responses. Ian Guerrero wrote:

So I'm basically going to write you a note. So . . . about Chem II, I'm kinda lost in here. DAMN THESE SMART PEOPLE. Kinda getting lost over this subject. I'm not too sure I want to be a pharmacist now. Bio II was really fun and I enjoyed the subject matter. . . . One of my friends thinks you are hot (except for the pregnancy thing). Kinda weird. As a senior and 1st time running on a team, I want to make a huge impact (in a positive way) in EPHS. I want to be all-conference for track, impossible but a dream I chase. . . .

Molly Loutos gradually honed in on some good teaching advice for Angie.

I am really glad that I understand most of the things we do in Chemistry. I just don't understand things at first, but once I practice I eventually get it. I think the white boards make it a lot easier for me to do things. For some reason I actually do the problems better when we work on the white boards.

Sean Padilla shared some larger life issues.

Something that has been troubling me lately is time management. It's becoming harder and harder to find time to finish all my obligations between homework, my extra curricular activities, and clubs at school, and working a job on the weekend. Everything always gets done, but the quality of my work has taken a dip down.

Putting the Writing to Work

How does Angie use these dialogues? First of all, she writes a short answer at the bottom or on the back of each student's note and hands the notes back a day or two later. The kids avidly devour her responses, looking for the quick personal connections that she invariably offers.

My sister and I fought like that, but now she is my best friend (after my husband!).

OK, I will try to slow down. I thought that this stuff would bore you all since you've already done it in Chem I. I'm glad to hear you like this class—it is my first time teaching it. ☺

It's nice to have students with such ambition.

I am sorry to hear about your aunt. Take a deep breath and do what you can do with all the effort you have.

Thanks for that great suggestion—remind me to get out the white boards if I forget, OK?

You'll look back at high school and laugh at its simplicity.

Stick shift rules!

Reader, think about how long it would take you to write brief responses like these. Thirty seconds each?

Back in class, Angie will bring up an important chemistry topic that's appeared on several students' notes—like today, when several kids have asked about “sig figs,” or significant figures, the policy by which students are required to work out chemical equations to a particular decimal place. “Do we need to go over why this is so important?” Angie asks, and several kids nod. She goes to the board and conducts a quick minilesson: she jots examples on the board, making an analogy to the measurements her carpenter husband makes at work. “He can't just round his measurements off to the nearest inch—or foot,” she explains. “The house might fall down.”

Benefits of Teacher-Student Dialogue Journals

1. You get to know students.
2. Students get to know you.
3. People who know each other generally like each other.
4. You get a chance to be playful and human, and to be reminded how funny and delightful young people are.
5. Mutual acquaintance creates investment in the working relationship.
6. You hear from shy kids who never speak up.
7. You get diagnostic feedback about the subject matter: what's hard, what needs review or reteaching, what's easy.
8. You get cues for individualizing instruction.
9. You find out about learning styles and how to reach different ones.
10. You get help matching kids in pairs or forming small groups.
11. You hear kids' often astute self-assessments.
12. You can factor personal issues into assignments, schedules, grading.
13. You provide kids with models of competent adult writing.

What Can Go Wrong?

As Angie herself notes, there may be skeptics in the class who don't take this opportunity seriously at first—or ever. As long as they don't disrupt everyone else's writing time, it's their loss. But most scoffers get sucked in when they see the teacher is serious and that the letters get read, answered, somehow used in class.

If time is the big constraint, don't give up on this whole idea. Try doing letters with just one class at a time. Or have just ten kids a week write you letters (that would mean every kid would get two letters a year from you, still a very special occasion). Just set up a schedule that you can live with, so you feel serene and unpressured enough to offer the quick but personal responses Angie has modeled.

Do you believe in the idea but just can't find the time to answer every single kid separately? Instead of skipping the whole activity, have kids write the letters and then skim through them. Write just one whole-class letter in response, copy it, and hand out it to everyone.

Dear 4th Mod History,

Thanks for your inspiring and amusing letters. Based on what Ned, Jane, Jerry, Julie, and Natasha say, we need to go back and look at the Turner Compromise again. On the other

hand, it seems like everyone has a handle on the last unit. . . . Yes, Brad, I do drive a fifteen-year-old pickup truck. I call it Nellybelle and I bought it in college. . . .

Try to work each kid's name into the letter somehow so they all know they have been heard.

Oh, by the way, did we mention that Angie Andrews is a *first-year teacher*? It is so good to not know what you can't do.

Variations

In the fall, Angie keeps the writing prompt pretty open, because her main goal is to get to know young people as learners and as individuals. Later in the year, she sharpens her prompt, focusing more closely on chemistry. Her midsemester dialogue topic has three parts:

1. What connections do you see between chemistry and your own life, now and in the future?
2. What makes chemistry hard?
3. What can I do to make it more understandable?

Angie listens hard to what kids have to say and makes midcourse corrections accordingly.

We are big believers in letter writing for classroom management. When teachers tell us about discipline problems they are having in the classroom, they often mention talking to the kid out in the hall, calling the parents, deducting points, or sending a discipline referral to the dean. How about writing a letter? We've found that a personal note handed to a misbehaviorer on the way out of class is often more effective than any kind of face-to-face encounter, which usually just triggers kids' need to openly defy authority. Instead:

Dear Mark,

Today I noticed that you came to class without your materials and without having done the reading—again. That meant you couldn't contribute to the small-group discussion. Your group needs you to be ready every day; they are losing lots of good ideas every time you're not prepared. Will you address this, please?

Mr. Daniels

We caution against sending only negative letters, although one-off notes can work in discipline situations. But it's better if they happen as a part of a wider, multipurpose correspondence focused on the content of the course. In Smokey's first class, he tells students that everyone will be getting a variety of notes as the course goes on—the

might be newsy, they might have questions, and they might be behavior oriented. That way, the other kids don't taunt recipients of a teacher missive, going, "Oooh, Brenda got a letter!"

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