Writing to Learn Means Learning to Think

Syrene Forsman
Roosevelt High School, Seattle, Washington

As teachers we can choose between (a) sentencing students to thoughtless mechanical operations and (b) facilitating their ability to think. If students' readiness for more involved thought processes is bypassed in favor of jamming more facts and figures into their heads, they will stagnate at the lower levels of thinking. But if students are encouraged to try a variety of thought processes in classes, they can, regardless of their ages, develop considerable mental power. Writing is one of the most effective ways to develop thinking.

I assume that my students are all capable of thinking, but that they don't all recognize how the process feels, nor do they know how to direct their brains toward a product which I can evaluate. By using writing-to-learn strategies, I can get students thinking, show them how to record the ideas that crop up, how to organize the wealth, how to sort out and select the one gem they want to polish, and I can give them a critical, yet supportive audience to help them to clarify their ideas in writing.

Writing to learn is learning to think, on paper, about what the students already know and how that fits with new informtion being studied in our curriculum. When I look over the material to be covered in a semester, I have to remember that "learning" is allowing, not forbidding, a newly discovered rock to be fitted into the wall, the construct, of a student's reality. Learning may require moving some older rocks around, or even out of the wall. Teachers can't forcibly pile a semester's worth of new rocks into their students' minds. Each mind picks through the rocks, quickly or slowly, to rebuild or enlarge the structure that is that person's image of the world.

To begin incorporating new material into existing world views, I capitalize on the students' innate drive to discuss their lives by inviting their opinions, fears, emotions, values, questions, and analyses into

the **journal** "storehouse" for later application to composition assignments derived from required reading. Tying such newly "learned" information to the student's experience makes the new information stick far beyond the next scheduled quiz.

I use journals in my classes throughout the year. Students savor and save their journals because they provide a map of where their minds have been during a period of intense growth and change. Its stored material, when utilized in what Linda Flower calls reader-based prose, can give students confidence in the diversity as well as the importance of their own ideas. "I have nothing to write about" is no longer a valid excuse to avoid writing an essay, because the student has written pages and pages in response to the carefully structured sequence of daily writing topics.

During the daily journal writing, I insist that students write continuously for a specified number of minutes (five, to begin with); that they write whatever is in their heads about the topics, with almost no regard for someone reading over their shoulders (they can always remove material they don't want to share before turning in the journal for credit); and that they keep a record of the number of words they get down on paper during each timed write. This word counting is mechanistic, but it allows students to scrutinize their own growth as writers. When presented with this concrete evidence that they can write more than they ever thought possible, students develop the confidence and comfort that characterize fluent writers.

Students become accustomed to a few minutes of dictated topics, a prewriting discussion or exercise, and then the words, "Please begin writing. I will set the timer." When the time is up, I ask students to calculate their word total as follows: "Count the number of words in any three lines. Find the average number of words per line. Multiply the average by the total number of lines you wrote during the timed exercise. Record the number at the end of the entry." My first goal for all students is that they increase the number of words they generate in a timed write, and counting words provides concrete evidence of their progress toward that goal.

The class can choose from three questions in this **focused writing**, so that if they run out of ideas on one, they have something else to write about. They can transfer this approach to more academic composition assignments, recognizing that "if I can't attack this essay from Angle A, let me try B, or even C." I construct the questions with several goals in mind: (1) to direct their minds to the subject matter of the day, (2) to encourage ever more complex levels of thinking, and (3) to increase the flow of ideas onto paper.

During the first weeks, I pose questions that invite students to dip into their own backlogs of experience. Events that have sparked interest—a new school rule, the band at last Friday's dance, and the kitten found on the front steps—all offer students chances to write as well as to examine their lives more closely. My experience has been that when students have had little experience writing in the school setting or when their writing has been inhibited by fill-in-the-blank exercises, they need to develop self-respect for their own generating power. Before I can ask them to write to learn, they have to know they can write at all.

Since fluency is my goal, I grade by awarding points for filling a set number of pages every two weeks. The number is negotiated after the first two weeks of recording word counts so that the students can see that they are capable of generating more and more words in one ten-minute write, and they are reasonably confident that they can continue the curve. The requirement of four pages a week (in some classes six or seven depending on the level of ability) no longer frightens them. They are now ready to discuss with me how many pages per two-week unit they must hand in for credit. I offer to accept the average number of pages they have completed. They are "entitled" to include material they have written at home, as long as it's focused on topics from my English class. I discourage "Dear Diary" entries and warn students that they may be asked to read aloud in class the ideas they come up with as a result of writing, and that, since I will be reading the journals at intervals, they are expected to stay on the subject. They are also entitled to include lecture notes and reading notes, although I refer to them as "ideas" or "information" they are planning to use in a later composition. Any rough drafts of composition assignments are also acceptable, even if not required. This encourages students to save drafts on which notes from the writing group critique have been recorded, thereby making them more conscious of evaluation's place in writing.

Emphasis on quantity solves several problems. The students who cry, "I hate essays. Can't we do grammar?" or "I don't have nuthin' to write," feel they can achieve only within a rigid structure. Ten years of school has taught them that they can succeed at fill-in-the-blank questions, but would fail to meet standards when they struggled to share their own, sometimes inchoate, thoughts. Their own ideas had become "nuthin'." The journal, however, accepts everything for storage and credit. The student need only generate material. I'm responsible for providing writing-to-learn strategies for selecting, polishing, and publishing their ideas. This structure often unleashes a self that has lots to say.

As they become more fluent writers, students learn to trust the outcome of strategies that at first seem unlikely to produce any "real" writing. I emphasize the importance of recording in their journals personal responses to debates over values, opinions on character motivation, difficulties they had understanding a new concept, all of which may eventually find their way into a composition. Students don't always understand the purpose of some journal topics at first. As one student wrote in her evaluation, "Sometimes I see your reason for the assignment after I've done it." Learning to trust my reason as well as their own is an important stage in our development as a writing community. One day, for example, I asked each student to pick one object from a large group of identical objects and write a description of it. They could have been oranges or pine cones; in this case they were unshelled peanuts. My goal was to help them see how much they could see. Here is one student's response:

> Peanut description
> Doesn't talk back
> itsy-bitsy head
> itsy-bitsy tail (a bunny tail w/7 tiny strands)
> 12 strings to hold him together going from mouth to tail
> brown patch on his left side
> only one peanut inside
> Shorty
> top of his head is off-center
> flatter on the right side
> scar on right semi-back
> slightly dirty on top of head

Once students had completed the list of characteristics, I collected the peanuts. Then students were to pick their nut out of the larger group of nuts. Nearly all the students remembered what their peanut looked like, except the person who howled: "Someone took my peanut and left this crummy one!" (One or two students still had their peanuts at home at the end of the year. One said, "How can I throw away something I've gotten to know so well?")

Because the peanut exercise helps students recognize their considerable powers of observation, I feel entitled to demand they apply those powers to literature when they write analytical or comparison papers. I can assist in the outcome if I structure the journal topics leading up to the rough draft of the paper. For example, I can ask them to **list,** as they

did with the peanut. They may list characteristic sentence structures, typical settings, slang, or frequent themes of various authors. I can ask them to write **dialogues** between two authors exchanging outcomes of their novels in order to prove why the other's conclusion could never work. I can ask them to create a **dramatic scenario** in which they describe one of the novel's characters as one of the FBI's Ten Most Wanted Fugitives, explaining the crime she or he is accused of. After a week of such topics, most students can write an excellent theme comparing the works of two writers. As a matter of fact, many will have trouble discarding the less important material, simply because the ideas belong to them, not a textbook. ("How can I throw away something I've gotten to know so well?")

Yet students do learn to make hard choices. Paula was searching for a unifying idea for her final paper on characterization in Shakespeare's *Romeo and Juliet* when she developed the following **cluster**.

Paris Romeo Mercutio
Tybalt

Her cluster needed only four words to set her off on free writing that focused on the character of Romeo.

> Romeo keeps watching Juliet and Paris looks around but still likes Juliet. Romeo more flirty; just changed loves from Rosaline to Juliet. Act II(?) Romeo was really like a little kid when he was in the Friar's cell like a baby with his new toy taken away. Then in the tomb he was so much more mature, he had everything planned out that if she really was dead he would kill himself with poison.

You can see her mind moving from a topic close to her own social experience, the fluidity of teen pairing structures, to a topic that demands a more objective approach from her, Romeo's character change as exemplified by his priorities. Aware of her audience (me) she chose the second topic. If the composition were intended only for her journal, I believe she would have opted for the first choice. Then she could have played around with a personalized horoscope or advice to the love-lorn column as they would be written to a Romeo or Paris.

When they have written drafts, students are ready for **writing groups**. This means listening to ideas about one's own written work, and listening to others' composition ideas in order to make intelligent comments. As students formulate their criticisms, they are learning about their own writing, as well as about the topic at hand. As others make comments, the student-writers catch the fire of new ideas, some of which may be incorporated into their own work, some of which they may simply admire. Students request writing groups just before big papers come due, even if I haven't scheduled them. Having the writing

group encourages many students to produce, without the hint of doom that the teacher's due date provokes.

Students soon realize that the teacher is not the only expert in the class. Other students, struggling with the same assignment, can be sources for help. Some student writers are so eager for other writers' critiques that they will arrange time outside class to share papers, or will ask if they can give up twenty minutes of an in-class reading day in order to read each other's papers and write comments.

At first I ask students to reflect on themselves in their journals and speculate on how their past shapes today's person and tomorrow's. When they have demonstrated fluency in their writing and have learned how writing groups can help them revise, they are ready for new challenges. In particular, I want students to be able to see connections between writing and thinking.

One way students can see this connection is to understand the meaning of common teacher directives such as "list . . ." or "define . . ." To help students perceive the different types of thinking required for different types of questions, I relied on Gene Galleli's *Activity Mind-Set Guide* (Buffalo: D.O.R. Pubs., 1977), which is based on Bloom's taxonomy. First, the class listed questions they would like to argue about, ranging from school issues such as "the right of school-age smokers to pollute a specified outdoor area" to "terrorists' impact on developing nations." Then we divided into groups, each with the same assignment:

> Choose one topic and construct six questions students can write on in their journal, one question for each cognitive level.

Students had in their hands a brief version of Galleli's lists. The level on the left is paired with a list of typical teacher directives on the right.

KNOWLEDGE, level 1 = list, recite, identify

COMPREHENSION, level 2 = reword, define, outline, calculate

APPLICATION, level 3 = solve, relate the problems to a new situation, operate

ANALYSIS, level 4 = take apart, simplify

SYNTHESIS, level 5 = combine, reorder, formulate

EVALUATION, level 6 = appraise, referee, justify, criticize, grade

The groups returned to the blackboard with their six questions which the class used as the basis for debates, very informally correcting each other's misinterpretatons of the directive term. To reinforce students' understanding of the directive, I asked them to write on journal topics which included the same words. They read this writing aloud

and received comments on how to align their responses to the "cue" word.

Later, I asked students to develop questions for written exams using these directive words. One group took character development, another, plot, symbols, and so forth. They had to reorganize information in order of importance, establish purpose in order to phrase the question (define or justify, but not both!) which would *they* be able to or like to answer in an hour-long essay test. This process of developing their own uses for terms commonly used by teachers helped students see how writing and the learning they are expected to demonstrate intersect.

Students reading Bronowski's *The Ascent of Man* developed eight questions from the chapter demonstrating how Homo sapiens differed from other mammals: "State Bronowski's criteria used to distinguish man from other primates," "Explain the development of less skin pigmentation in Homo sapiens," and "Evaluate Bronowski's reasons for believing Homo sapiens isn't limited to one environment while animals are fixed in one environment." The first two questions are typical of essay tests. Few teachers move beyond levels one or two in the responses they expect from their classes. Question three, however, evoked a surprising response in my students. Although their knowledge was, at best, limited to the facts Bronowski presented, they wanted to do battle with his beliefs and that question offered them the opportunity. Their writing styles were invigorated by the chance to tilt with theoreticians in the best tradition of any academic seminar.

Not all students will have the capacity or interest to take up the gauntlet offered by such questions. Some prefer to summarize or organize data in historical or significant order, or restate concepts from the new material. In the process of selecting the form their question will take, however, they have to try thought processes new to them. Even this brief test strengthens them for the next, until one day they can use the new mode of thinking with confidence.

To encourage students' awareness of the levels of thought required by specific problems, I often ask them to write about how their minds work. A game such as Mastermind provides opportunities for students to devise and discuss strategies of thinking. Sometimes I give them questions from the PSAT's selection of analogies (either pictorial or verbal), and we discuss how our minds maneuver to solve the problem. Some understand the mode of thinking clearly by watching another student at work; some are better served by playing a challenging game and then writing about it in their journals.

Knowledge of the limitless capacity of their brains for new associations frees students to attempt divergent thinking on paper. Their jour-

nals are safe places to test ideas with no fear of recrimination for disagreeing with the teacher or the textbook. I only ask, when the new ideas are to be incorporated into a "reader-based" composition, that the writer support theories with evidence taken from personal experience, research, and quotations from our class texts.

As composition topics focus more narrowly on literature, and some students have difficulty understanding the literature, I devise questions that make the material more comprehensible. In studying character development in *Romeo and Juliet,* for example, I spiced the questions with contemporary flavor: "Have you ever known an embittered or frustrated suburban housewife like Juliet's mother? What contributed to her attitude?" Students respond quickly to such a discussion topic, but could just as quickly lose the brief flash of insight in the crush of crowded halls or in a noisy lunchroom. The journal preserves it for them. Trying to put human relationships into perspective may be the largest task facing adolescents. "Have you ever heard a father react in anger to a son or daughter who threatens to embarrass him or the family? What did he say? Did he follow through?" Ten minutes of journal writing for three days can lead to powerful essays on character and motivation in Shakespeare's play, because, of course, while my test questions ask them to interpret Shakespeare's characters in the light of their own experience, the proof of their interpretations must lie in quotations from the characters' lines.

Students often assume that literature has nothing to do with them. They don't see any connection between their own lives and the reading assigned in class. Thanks to reading aloud their journal responses to *Romeo and Juliet* or whatever the class is reading together, they hear themselves interpreting and analyzing literature. They gain respect for each other's depth of insight and gain an understanding of literary criticism. They're also ready for one of the tools that enlarges their thinking about literature: the analogy. The skill to think through an idea from either end, the general or the particular, is evidence of what Piaget calls "formal operations," a higher level of cognitive function. It involves skill with inferential and educative reasoning, and it leads to effective analogic writing. When we see students using analogy competently we may assume they have made the transition from concrete operations to abstract reasoning.

We build up to analogies by playing with metaphors first. (Robert Frost said, "I have wanted in late years to go further and further in making metaphor the whole of thinking.") Metaphors in a composition infuse the piece with more life and may lead the writer to much deeper understanding of his or her point than when the metaphor first popped onto the journal page. Exploring how far to push a comparison between

a concept and its metaphor will eventually lead to untruth, but oh, what truths students have discovered about what they "knew" during the exploration.

To help students learn the feel of using metaphors, I often ask **metaphorical questions** such as asking them to picture the plot as a machine, or label each character as a different flower, or describe the setting as a kind of active chemical. With sketches on the blackboard, labeling parts as we go, students pile one crazy idea on another, until they have more than enough for a journal entry. Students have the option of expanding one analogy of their own. The plot as machine, for example, is a favorite, possibly because of its flexibility. By pouring in Romeo, Juliet, and the preexisting feud, knowing that the lovers' deaths will be squirted out of the spout, students can manipulate different characters in the positions of choppers, mixers, and packers to discover the intricacies of Shakespeare's analysis of Renaissance society and young love.

Student writers are exhilarated by the powers their minds turn on when a whole class starts brainstorming on such a problem. I encourage continued use of the metaphor throughout the remainder of the year, particularly in **admit slips**. Journal topics include at least one opportunity a day to play with such a structure, either asking students to explore another author's use of imagery, or inviting them to invent their own. Metaphor becomes a natural part of the students' thought processes, one they can apply to any writing assignment.

What follows are excerpts from Diane's journal while she worked out an essay on one of Jacob Bronowski's chapters in *The Ascent of Man*. The class was attempting to respond to nonfiction using personal opinion bolstered with proofs (quotations) from Bronowski.

The following list is her personalized, shorthand version of the essay questions which groups had developed and written on the board.

> nomads—any hope? Can develop civilization using animal's power—greater than own
>
> explain/interpret why the nomad culture can exist at the same time the modern nuclear culture exists.
>
> evaluate B's statements that "man, like the wheat, is now fixed in his place." [This entry is circled in red pen.]
>
> Although I may have interpreted B's statement incorrectly, I definitely disagree with him. Our world is not limited, nor is our mind. Examples who are not fixed in agriculture ability to choose.

She has decided to answer the last question. She notes that she may have to reread Bronowski, to check her interpretation. The germ of her theme statement is already there. Her next step is to flesh out her ideas.

> Draft one
>
> B has made himself limited; with all of his physical facts and discoveries, he has not taken the time to see what is beyond.
>
> man mind frontiers, changes can be reversible—people (going back to old life) not stuck in agriculture—new ideas?
>
> The mind is an extraordinary thing. Scientists, researchers, doctors, and psychologists know very little about the mind and its extent. [The following three sentences are circled in red.] The mind is never fixed, and if the mind is not, the man is not. The mind is still free to wander. Imprisonment of the mind is only possible when it is self-inflicted.
>
> A man imprisoned in chains is only physically bound. He is mentally free and that is what matters.
> boundaries/space beyond
>
> physical/mental chains—2 examples

In draft one, she wrote everything she had thought so far, right or wrong. The first paragraph, which I did not include, was like a dialogue, attacking Bronowski's point. Then she apparently reread what she wrote and began to redefine her ideas, scratching out, reading again, and inserting as she wrote. The last four lines begin to focus on the "chained" metaphor. She's found a unifying analogy for her paper.

Diane is still free to develop her ideas. Even the next draft is not going to be evaluated summatively—just critiqued by members of her writing group who will hear her read it.

What a pleasure to read a set of essays with ideas this vivid, rather than the pallid canned rhetoric of students whose style was bottled up in format. This diversity depends on students having had an opportunity to play with language without fear of judgment at first. Language may constrict our view of the world; culture may prejudice us to expect certain things in what we "see." Every generation then will "see" differently. Since today's teacher is yesterday's learner, we must not limit the creative vision of tomorrow's generation to our metaphorical structures. If I prescribe fill-in-the-blank exercises for my students, I am literally prescribing the form their language may take. I'm delimiting the future of their thinking unless I also give the students chances to opt for questions that challenge them to synthesize new information.

Inventing prose fiction is an experience that can help students get the feel of divergent thinking, similar to that in metaphor. In a unit on mythology, where my point was that every culture perceives the universe in metaphorical terms, students first collected proverbs, recollected fables, and read myths from several cultures. On the board we compared the structural differences of each of the three modes of literature, and the dimensions of the narrative elements.

Rather than dictate a definition of the fairy tale to the class, I asked students to write an account of one particular fairy tale as they remembered it. Some were incredibly complete; some had incorporated Disney's version; most were at least two pages long.

Writing groups met and discussed which elements the tale shared with proverbs, fables, and myths, and to what degree. These were then listed on the board. Missing elements which student writers knew lay in their fairy tales were added.

Students copied only those elements which operate in a myth and went home to write a mythological explanation of some phenomenon in our world, in contemporary terms but following the traditional format of their list. They were asked to imagine how a newcomer to our planet might explain aspects of our life that we take for granted. Secure in their understanding of the formula for a myth, nearly every student produced at least a short composition. An excerpt from Diane's journal records her thinking process.

> Most of my ideas are already down on paper. I did an outline yesterday of some of my ideas. I sat on my bedroom floor trying to think of something (especially modern myths) and then they started coming and they kept coming for 2 hours. It was pretty great. I think it's beginning to come together in my mind and it may be a little (or a lot) wrong, but I'm happy with it. I have to find out how long it should be 'cause I probably could write a whole lot.

Her topic was the source of humanity's quest for knowledge. She told the story from the viewpoint that such a quest is a God-given right, regardless of the price such a quest exacts in pain and responsibility for the consequences of actions. In the excerpt above, the fluency she comments on is well developed and so are her powers of concentration since she is able to write for two hours. Although she's uncertain how nearly her idea meets my requirements, she has the confidence to go ahead on her project because she thinks it's good. Her only concern is keeping it short enough!

The class was excited at getting a chance at "creative writing." ("Creative," I believe, is a misnomer. Does this kind of writing have another side to the coin? Degenerative? Is that why so many essays are deadly?) I was pleased with the evidence in the finished products that students had manipulated concepts in their own writing. They had grappled with plot, character, setting, and theme in the extremely restrictive formula of traditional mythology, and the battle taught them more than any number of vocabulary quizzes. Even if their myths were not great literature, the student writers had learned a great deal about myths.

When students are able to synthesize new information, I ask them to devise a research question that has no single answer locatable in an encyclopedia, plot summary, or *Twentieth-Century Authors*. This assignment requires students to read a novel and write a research paper. They are to research the life of the novel's author and determine the source of his characterization, setting, plot, or theme from his life experiences. Diane has chosen the hardest: theme. Its difficulty lies in the challenge to combine knowledge of the people in the author's life who might have offered models for his or her characters, the settings which might have been part of the author's life, and the events, ranging from the most personal to the most obviously historically prominent, which the author experienced. Diane's journal, excerpted below, records quotations from two typically plagiarized sources, *Encyclopaedia Brittanica* and *Twentieth-Century Authors*. You can see her struggle with the information she has read. Diane has done her homework and is wending her way on paper toward a personal, not plagiarized, understanding of fiction.

> On Pasternak's *Dr. Zhivago*
>
> Past. could have chosen almost any setting real or imaginary for the love triangle that is the main plot. There must be a reason of some sort behind his choice. Because a lot of the book is not concrete plot, and is devoted to showing the characters' feelings and omniscient expressions, it would seem correct to believe these thoughts are not random and have come as a direct result of that time period and its events. Should the theme that Past. had in mind be a delving into his own thoughts, he would then be questioning the revolution and what it meant. There is no end to what one could imagine that had happened to Past. that makes him write.

Many hours of writing purposefully as well as freely has taught Diane to pay careful attention to the amount of space devoted to action as opposed to rhetoric, and she draws her conclusion. Based on the historical context of the author, she can imagine what his purposes were as he wrote. Her mind will move far, far beyond an "A" on the test over plot, character, and setting. She is using writing-to-learn skills to do a kind of thinking new to her.

The semester's end brings evaluations of the teacher by her students. Some of the comments on the journal include, "the strange topics forced me to search and dig through my mind," "helps us think of things we wouldn't ordinarily think of," and "It doesn't really sound like homework although sometimes it does." Students describe the journal as one of the class activities they enjoyed most. Perhaps they enjoy journal writing because they can see their own learning there. It's

an experience most academic activity denies students, except perhaps in discussions where the pot is boiling and time is allowed for each person's mind to taste and add to the mix.

Students also mention thinking processes frequently in their evaluations, and their comments confirm my belief that writing to learn develops their ability to work. Their comments reflect that they see speculation as a human activity of which they are capable. They describe their learning as "finding more questions" and clarifying what they think. They are concerned about consistency of views as well as "knowing the material." In other words, they are well on their way to becoming thinking learners.