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Teaching Ought Imperatives

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It is common, in everyday discourse, to encounter arguments such as these:

Example 1: Do not try to skimp on the time you spend on studying. How much you learn is a function of how much time you devote to learning. (psychology textbook)

Example 2: If you encounter a bear, do not run. Running can elicit an attack. (trail guide)

Example 3: Always use the child safety lock whenever a child rides in the rear seat. Serious injury could result if a child accidentally opened the door and fell out. (car owner's manual)

Example 4: Savings of up to 75% on brand names throughout the store. Hurry in today! (advertisement)

In each of these examples, reasons are offered to support a conclusion that is expressed as an imperative or directive rather than as a declarative sentence.

The notion that premises and conclusions need not be expressed in declarative sentences is widely acknowledged in logic and critical thinking texts. Most such texts, for example, note that rhetorical questions (sentences that have the grammatical form of questions but are meant to be understood as statements) can function as premises or conclusions in arguments. Moreover, many such texts count advertisements that feature imperative sentences ("Hurry in today!") as implicit or explicit arguments. Curiously, however, very few texts provide any guidance in dealing with statements expressed in imperative form. Here I offer some advice and some classroom-tested exercises that instructors may find helpful.

Identifying Ought Imperatives

An imperative sentence is a sentence in which the main verb is expressed in the imperative mood. As the term "imperative" suggests, one common use of such sentences is to express commands or orders such as "Close the window!" or

"Dress up that line!" However, imperative sentences are not merely used to express commands, i.e., authoritative directives or mandates. Other uses include:

- requests: Please pass the salt.
- petitions: Give us this day our daily bread.
- exhortations: Go Yankees!
- instructions: Insert Tab A into Slot B.
- suggestions: Let's eat at Flanagan's tonight.
- proposals: Trade me Park Place for Illinois Avenue.
- demands: Hand over your wallet! (said by a gunman)

And doubtless there are other uses than those listed here.

Significantly, none of the examples above express *statements*—that is, sentences that can sensibly be viewed as true or false. None asserts or denies that anything is the case. And because arguments consist entirely of statements, none of these types of imperative sentences can be parts of arguments.

However, there is one type of imperative sentence that is used to express statements and is often featured in arguments. This is what Bassham et al. call an *ought imperative*.

An ought imperative is a sentence that is expressed in the imperative mood but is intended to assert a normative or ought judgment about what is good or bad, right or wrong, or advisable or inadvisable. Consider two examples:

Example 5: Don't read beauty magazines. They will only make you feel ugly. (Mary Schmich)

Example 6: Never swim in a lake. They contain snapping turtles, which have no natural enemies and therefore grow to the size of motel units, plus they tend to be irritable because they mate for life. (Dave Barry)

In Example 5, the sentence "Don't read beauty magazines" clearly isn't intended as an order or demand. It is a piece of advice, an alternate way of saying that "one *ought* not to read beauty magazines" or that "it is a *bad idea* to read beauty magazines." Similarly, in Example 6, the sentence "Never swim in a lake" is not intended as a command or a mere suggestion or proposal. It is an emphatic way of saying "one *shouldn't* swim in a lake," followed by some half-facetious reasons supporting this normative judgment.

Since ought imperatives appear frequently in arguments, it is important for students to be able to distinguish ought imperatives from commands, requests, and other types of imperative sentences that do not express statements and hence do not appear in arguments. But how can they be distinguished?

The key question we should ask is this: *Can the imperative be rephrased—*

without distortion of the speaker or writer's intent—as a value statement—that is, as a statement about what is good or bad, right or wrong, or advisable or inadvisable? If it can, then the sentence should be regarded as a statement.

To test this "rephrasing test," let's apply it to four examples.

Example 7: *Drill sergeant to recruit:* Close that window, soldier! It's freezing in here!

Here we have an imperative sentence, followed by a "reason" that in some sense provides a rationale for the sentence. Should the passage be regarded as an argument?

No, in this context it is clear that the sergeant is issuing an order rather than expressing an ought judgment ("You *ought* to close that window, soldier!"). Thus, the rephrasing test correctly classifies this passage as a non-argument.

Example 8: Many that live deserve death. And some that die deserve life. Can you give it to them? Then do not be too eager to deal out death in judgement. For even the wise cannot see all ends. (Gandalf, in J. R. R. Tolkien's *The Lord of the Rings*)

In this passage, an imperative ("Do not be too eager to deal out death in judgement") appears to be supported by a series of reasons. Is the passage an argument?

Yes, in this instance the speaker's intent is plainly to express and defend a value judgment ("You *ought* not to be too eager to deal out death in judgement") rather than to issue a command or offer a mere suggestion. Here, again, the rephrasing test yields the intuitively correct answer.

Example 9: Give me the beat, boys, and free my soul. I want to get lost in the rock and roll and drift away. (Dobie Gillis song)

Is this an argument?

No, in this case the songwriter is making a request, followed by a rationale for the request, but he is not making or defending a value judgment about what the "boys" should do.

Example 10: Do not feed honey to infants under the age of one; their systems cannot digest it, and infant botulism may result. (Lisa Tracy, *The Gradual Vegetarian*, 1985))

Is this an argument?

Yes, here the writer (author of a how-to book on switching to a vegetarian diet) is not giving an order or making a request or offering a mere suggestion. She is saying, in effect, "one *ought* not to feed honey to infants under the age of one." Thus, the imperative in this passage ("Do not feed honey...") is an ought imperative, and since reasons are offered to support this ought judgment, the passage is an argument.

Strategies for Teaching Ought Imperatives

While the distinction between ought imperatives and other types of imperatives is sometimes a subtle one, I've found that most of my students—typically, first-year Critical Thinking students—do manage to catch on if the material is presented in the following way.

First, explain what statements are, how they differ from sentences, and how some sentences (such as rhetorical questions) that don't look like statements are, in fact, statements.

Second, explain what imperative sentences are and the various ways in which they can be used (as commands, suggestions, requests, demands, etc.).

Third, spend some class-time doing exercises on distinguishing statements from non-statements. Any good logic or critical thinking text should include such exercises. Three sets of such exercises are offered in my own critical thinking text and the accompanying Instructor's Manual.

Fourth, using plenty of examples, explain the nature of ought imperatives and the rephrasing test to differentiate them from other types of imperatives.

Finally, do some in-class exercises that give students practice in identifying ought imperatives. A sample set of exercises that has proved successful in my classes is included as an appendix to this article.

Identifying ought imperatives is an important but neglected topic in informal logic and critical thinking courses. Arguments that include ought imperatives are extremely common—far more common, in fact, than arguments that feature rhetorical questions—yet few textbooks give students any help at all in dealing with them. The distinction between ought imperatives and other types of imperatives, like the distinction between arguments and explanations, can be a tricky one for many students. Yet with practice and some well-chosen examples and exercises, most students can master the distinction.

Appendix: Exercise on Identifying Ought Imperatives

Determine whether the following passages do or do not contain ought imperatives.

1. Be nice to your kids. They'll choose your nursing home. (bumper sticker)
2. Toby, never throw a pen at your sister! You could put an eye out! (said by Toby's mother)
3. Voted the best hot wings in the Valley three years in a row! Come in today!
4. Extinguish all smoking materials. Fumes are highly flammable. (gas station sign)
5. If you consume three or more alcoholic drinks every day, ask your doctor   whether you should take ibuprofen or other pain relievers/fever reducers.   Ibuprofen may cause stomach bleeding. (label)
6. Let's eat at El Grande Burrito tonight. I feel like Mexican.
7. Traveling tomorrow morning might be slick in spots, so be careful. (weather report)
8. To become a complete hitter, train yourself to stride square to the pitcher. You'll hit inside and outside strikes and do so with your body in balance and under control. (Mark Gola and John Monteleone)
9. Don't pull your love out on me, baby. If you do, then I think that maybe I'll just lay me down and cry for a hundred years. (Hamilton, Joe Frank, and Reynolds song)
10. Deem not life a thing of consequence. For look at the yawning void of the future, and at the other limitless space, the past. (Marcus Aurelius)
11. Choose your next witticism carefully, Mr. Bond. It may be your last. (Auric Goldfinger, in the film *Goldfinger*)
12. Don't stop thinking about tomorrow. . . It will soon be here. It will be here,   better   than before. (Fleetwood Mac song)
13. Associate as much as you can with people of admirable character and proven sagacity. We become like the people we're around. (Tom Morris)
14. Come on, baby, don't say maybe. I've got to know if your sweet love is going to save me. (Eagles song)
15. Associate not with evil men, lest you increase their number. (George Herbert)
16. Hey, Jude! Don't be afraid! You were made to go out and get her. (Beatles song)
17. Don't pick Alpine wildflowers—they really do look lovelier on the mountainsides. (Switzerland travel guide)
18. Let us try to teach generosity and altruism, because we are born selfish. (Richard Dawkins)
19. Don't waste your time arguing with umpires. Number one, you can't do anything about it. Two, they're not that far wrong the majority of the time. (Ted Williams and John Underwood)
20. Rend your heart and not your garments, and turn unto the Lord your God: for he is gracious and merciful, slow to anger, and of great kindness. (Joel 2:13)
21. Be good to those who are good, and to those who are not. For goodness increases goodness. (Lao-tzu)
22. Life is short and we have never too much time for gladdening the hearts of those who are traveling the dark journey with us. Oh be swift to love, make haste to be kind! (Henry Amiel)
23. Do not, I beseech you, dread the things which the immortal gods apply to our souls like goads; disaster is virtue's opportunity. (Seneca)
24. O Lord, won't you buy me a Mercedes-Benz. My friends all drive Porsches; I must make amends. (Janis Joplin song)
25. Gather ye rose-buds while ye may/Old Time is still a-flying:/ And this same flower that smiles today,/To-morrow will be dying. (Robert Herrick)

Answers

1. Yes.
2. No. (Command)
3. Yes.
4. No. (Command)
5. Yes.
6. No. (Proposal)
7. Yes.
8. Yes.
9. No. (Petition or exhortation)
10. Yes.
11. Yes.
12. Yes.
13. Yes.
14. No. (Petition or exhortation)
15. Yes.
16. Yes.
17. Yes.
18. Yes.
19. Yes.
20. Yes.
21. Yes.
22. Yes.
23. Yes.
24. No. (Petition)
25. Yes.

References

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Using Writing in the Critical Thinking Classroom

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Properly guided, writing is an effective tool for improving critical thinking and argumentation skills. Writing activities offer students a complex tool for identifying problems, evaluating information, understanding concepts, applying knowledge, analyzing situations or texts, and for synthesizing and communicating ideas. Yet despite the advantages for students that come with using writing in the classroom, most instructors of critical thinking courses avoid it because of the potential for huge, time-consuming paper loads. But this does not have to be the case. In this article, we will be offering suggestions to help increase the productive use of writing in the classroom while avoiding the burdensome loads associated with traditional writing assignments.

To begin with, teachers of critical thinking need to sensitize themselves to the relationship between critical thinking and writing. In *Engaging Ideas: The Professors Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom* (1996), a well-received text used in many faculty development contexts in North America, author John Bean offers perhaps the clearest definition: "Quite simply, writing is both a process of doing critical thinking and a product of communicating the results of critical thinking" (p. 3). As Bean explains, conceiving of writing as simply a static transcription medium for communicating pre-existing ideas—as it has historically been reduced to—is to remove the complexity of language, writing in particular, as the tool we use to formulate and communicate ideas. By seeing writing as the process and product of critical thinking, the instructor can shift from asking such questions as "Is the writing clear?" and "Is the writing error free?" to such questions as "Is the writing interesting?" and "Does it show the writer actively engaged with a problem and carefully analyzing information that bears on the problem?" (p. 3). To address the later questions in students' writing is to begin looking for the hallmarks of critical thinking. According to Bean, critical thinking can be defined variously as, borrowing from Dewey, the process of engaging with a problem or, borrowing from research on academic critical thinking, the process of identifying and challenging assumptions, exploring

opposing points of view, and arriving at a conclusion or hypothesis that integrates available information in a way that minimizes or eliminates pre-exiting opinions or biases (pp. 2-3). From this perspective, the potentialities of using writing in the critical thinking classroom become more apparent.

The next step for considering how to utilize writing is to understand that designing effective writing assignments starts with building learning activities around this more complex view of writing. Teachers are hesitant to use writing because they recall the functions of writing when they were students—or how writing was "used" on them. Writing was (still is, predominantly) used to deliver information (in "boring" text books and lecture notes), writing was used to test for recall (in exams), and writing was used, mostly in mysterious ways, to differentiate abilities (grades on essay exams and term papers). Writing, as we remember, was also often used to punish, as in the case of rote memorization. This could also be said for the term paper as well, the quintessential college academic rite of passage. Mentioned only briefly at the beginning of the term, it somehow made up a significant percentage of the final grade, but was typically completed in a torturously short stretch of time, the last-minute all-nighter. These stereotypical truisms suggest not only why students dread writing in college, but just as much why teachers equate reading/grading student writing with punishment. Writing has historically been used to support passive learning—the lecture, the exam, the term paper. There is now a critical mass of research showing the ineffectualness of the traditional "lecture" mode for most learners (e.g., Cambridge and Williams, 1998). If we think of writing as the *active* process of critical thinking, and if we think of how we use writing in our own scholarly activities, we can begin to see alternative strategies for developing and enhancing critical thinking—strategies that also make for more interesting, effective, and rewarding learning experiences for students. Combine these with tried-and-true techniques for minimizing the paper load, and instructors will have more satisfying teaching experiences. The rest of this article will review effective writing-based pedagogical strategies and point to additional resources.

The Writing Process and Assignment Construction

To help you think about more varied ways to use writing in the classroom, we want to explore in more detail the idea that writing is a set of processes that writers go through to create a text (the symbolic representation of ideas, insight, knowledge, critical thinking). This process can be described linearly in terms of tasks most writers perform: prewriting, planning, drafting, and editing. All writers go through some form of this process when developing a written text. These typical tasks suggest opportunities for creating writing assignments that mirror and thus enhance the critical thinking process:

> *Prewriting Stage*: This is a stage of initial thinking, a generative moment or moments in the writing process. Some compositionists define the

prewriting stage as a time of dissonance, when a writer becomes convinced that something needs to be done, that some problem or question needs to be addressed. The link between problem identification and critical thinking is clear. Critical thinking begins with engagement, a felt sense of a problem and a drive to understand its underlying complexities. In the prewriting stage, the writer begins exploring, questioning, and generating information. It is often described as the stage of initial inquiry and discovery. For expert researchers, this stage can last for months, even years, as they reflexively set about understanding a complex phenomena that at times seems beyond comprehension. What activities would you characterize as prewriting in your own writing/research process?

Planning Stage: This is the stage of initial construction. Writers begin to organize their known information and attempt to determine what information is necessary and what information is less important or extraneous. At this stage, writers begin to formulate a strategy for articulating an idea or approaching a particular task that calls for a written response. Some writers are very methodical planners, jotting out detailed outlines that are discernable even in final versions. Many other writers need to begin writing before they can "see" which direction they want to go in. How do you plan to write? How do you organize your initial plans and goals?

Drafting Stage: This is a stage of production and text creation, when words are put down on paper. This is a writer's first attempt at fully developing their initial plans. Expert writers see their first drafts as a base to work from, a place of revision and growth. Too often, novice writers get bogged down or completely blocked because they try to write perfect prose the first time or create a finished product in one sitting. Similarly, "writer's block" often stems from this anxiety about producing "perfect prose" the first time. For experts, drafting is a generative process where initial plans are tested, elaborated, altered, and sometimes abandoned. How do you draft? Can you think of a time when you experienced writer's block? How did you overcome it?

Revising Stage: This is a stage of higher-order analysis, assessing how well the text achieves its purposes, addresses its audience, is coherently organized, and is sufficiently developed. During revision, writers "re-see" their writing in its broadest configurations. Typically, initial drafts incur multiple revisions before the final, publishable version takes shape. There are often significant changes in focus, organization, and development. Sometimes, revision calls for a whole new direction, with a new outline and new draft. For experts, revision is more often than not a social, collaborative process. This might be informal, when a writer seeks feedback from a trusted colleague, or formal, when a writer receives peer-reviews for scholarly articles submitted to journals. How much do you typically

revise? How often do you share your drafts with others for feedback? Has a publication of yours ever undergone significant revision as a result of informal or formal review from others?

Editing Stage: This is a stage of final analysis; one that is concerned with lower order issues. Here, writers make surface-level changes of style, grammar, spelling, and punctuation. They translate oral language into its more formal written counterpart. All writers, even expert writers, have weaknesses in some area of lower-order concerns, often related to their socio-economic background and educational experiences. The difference between experts and novices is typically that experts understand the social consequences of not adhering to agreed-upon conventions of what is variously called standardized written English or academic English. In this sense, editing is also social, and "editors" are there to help—or police, depending on how one views editors—writers conform to the stylistic conventions of a particular discourse community. Novice writers also often confuse editing with revision, and make only surface level changes that do little to improve a draft in need of higher-order revision. What lower-order concerns do you struggle with?

This discussion of the writing process is primarily descriptive, to make plain the kinds of activities that writers typically perform. As research and our own experiences teaches us, however, writing rarely proceeds in a straightforward, linear fashion, and parts of the process may be tacit for writers. Moreover, we might add other stages, like the "Incubation Stage," where we set our initial ideas aside and mull them over in our unconscious, while we sleep or perform other mundane tasks. Our point in outlining these stages is to help show how writing facilitates the *process* of critical thinking, from identifying problems, to heuristically exploring problems, to formulating tentative insights and plans, to communicating newly formed ideas to others. And just like most writing activity, particularly among academic communities of scholar-researchers, this process is social, recursive, generative. By thinking of the stages of writing in this way, we can see them as potential forms of writing activities in the classroom. We can develop a variety of opportunities to assist our students in developing as writers and thinkers inside and outside the classroom. Understanding the process of writing, for example, sheds light on the low quality of writing we often see from students following timed in-class essay exams—or from the "term" paper oftentimes written the night before. We're not advocating abolition of these forms. Rather, we are suggesting that you put any in-class writing you plan on grading in a process perspective. Likewise, for a larger research assignment, you can ask students to submit written work at each stage of the process, thereby ensuring that students develop a research paper that has merit and lessening the amount of single-sitting reading that a teacher must perform. We will discuss these strategies in more detail shortly.

Another point we wish to make, by causing you to reflect momentarily on an

abstract description of the writing process and its relationship to your own writing process, is to encourage you to promote writing in its social contexts, as a means for individual and social growth, development, and change. Since the acquisition of knowledge is not a simple matter of passively taking in data—knowledge is always actively constructed and transformed in use—critical thinking teachers must present their discipline-specific knowledge in terms of its applications inside and outside the classroom for students (see Geisler, 1994; Herrington and Moran, 1992). Teaching only the modes of discourse or forms of argument or the "research paper" does not equip students to participate as active, critically literate citizens, nor does it enable them to understand how to apply critical thinking and argumentation skills in future situations. Instead, it casts students into roles of passive instruction followers, writers who produce only what they are told to produce, using only a limited range of forms and having little understanding of, or practice with, the ways that contexts and conventions affect writing and reading. Thinking of writing in terms of the social contexts helps us recognize further that writing instruction is an ongoing process and the responsibility of faculty members in all departments. Although formally trained composition instructors may be better able to offer sustained and effective instruction in writing, all faculties have both the knowledge and the obligation to help students learn the writing skills necessary to participate in the myriad disciplinary discourses they will encounter.

Understanding how you write (and we're assuming that writing is a social process for you, embodied in your interactions with colleagues, family, co-researchers, and reviewers) is a key to understanding and developing empathy for how your students write. It is also the key to teaching them the modes, manners, and conventions of communicating in any given field. Teaching writing, in other words, is not just a matter of teaching students how to edit academic English (which is what happens when you emphasize surface-level "errors" in grading). Writing involves the process of inquiry from start to finish, and modes of inquiry vary from field to field. In the critical thinking classroom, we're assuming that part of teaching students how to think critically is using writing to engage students in "complex thinking about significant problems" and developing in students the habits of mind so that they become personally engaged with problems in any given situation, beginning with your course (Bean, 1996, p. 28). In the next section, we'll detail several ways this can be accomplished.

Informal Writing Assignments

The writing activities we describe in this section are not necessarily concerned with a final "product" as much as they are with capitalizing on the early stages of the writing process to assist students in identifying, exploring, and developing insights about particular problems posed by the teacher or, in due time, the students themselves. These kinds of writing activities are typically known as informal writing assignments, because they focus on the "exploratory, thinking-on-paper

writing we do to discover, develop, and clarify our own ideas" (Bean, 1996, p. 97). As Bean explains in Chapter Six of *Engaging Ideas*, informal writing is variously known as "unstructured writing, personal writing, freewriting, focused freewriting, or simply informal, nongraded writing" (1996, p. 97). The key is to incorporate assignments that mirror how critical thinkers use writing to record how they frame and explore problems. What kinds of answers did you have to our question about prewriting? Do you jot down notes on restaurant napkins? Write questions and commentary in the margins of a book? On a pad by your bedside? Do you use a journal, transcribe notes from a tape-recorder, or enter ideas into your electronic personal data assistant? Do you record brainstorming sessions with colleagues? Using informal writing activities in the classroom that mirror how you think-on-paper can be so much more effective for students than taking notes from a lecture. And while writing is an ideal tool for determining what students know, most students (and teachers) fear writing because of the grade so often associated with a piece of writing. But putting a grade on every piece of writing is unnecessary. As we explain shortly, you should certainly hold students accountable for the informal writing you ask of them, but you can use check/ minus grades that help emphasize the importance of doing thinking-on-paper. In this sense, "ungraded" writing activities can be very constructive and help you reach the goals that you have for the class, without overwhelming you with paper.

The most important consideration as you prepare to bring writing in your classroom is to think about tasks that are linked to key issues of the course, but also to students' lived experience. Writing activities need to keep students interested in the task at hand and also develop and refine the particular skills that you deem important. Short, in-class writing activities can be simple—focusing on interpreting a particular text's argument—or complex—focusing on the "big" questions of your field. Once you determine what you want students to learn or know how to do, it becomes fairly easy to incorporate writing activities that facilitate these goals. Of course, these goals should be articulated on the levels of the course, the unit/ module/project, and the particular texts or in-class lesson. While it may seem hard at first, thinking in terms of macro and micro outcomes becomes easier as you become more adept at designing writing activities tailored to particular goals.

The following is a partial list of activities that can be particularly useful in the critical thinking classroom:

Knowledge Probe: A five-minute writing task, usually performed at the beginning of class to determine what students know/don't know/want to know about a topic. The writing, usually based on assigned readings, can help students summarize a text, define key terms, or raise questions for further discussion.

Mid-Class Synthesis: Another short exercise that gets students to reflect on what they are learning from a particular classroom activity, from group work or lectures.

Minute Paper: A minute paper is an activity used at the end of a class period to summarize, evaluate, and question the day's activity.

Nutshelling: Students write down, in a sentence or two, what they understand about a topic or question. Good for generating grist for class discussions.

Process Description: This activity, also called "how to" writing, asks students to reflect on the ways or steps they went through to solve a problem or develop an argument or position. Ask students to act as experts teaching a process to a novice for example.

Concept Maps: You can have students explore problems graphically, using webs, Venn diagrams or any other visual representation of a concept or problem.

Summarizing: You can ask students to translate specialized information, e.g., a reading assignment, into their own, more colloquial language.

Microthemes: These are brief comparisons of ideas or concepts. Similar to short answer questions on exams, you can ask students to *informally* state and develop a thesis.

Opposing Views: Asks students to make decisions about an issue by developing side-by-side lists or arguments. While you can frame this as a pro/con activity, it is helpful to urge students to explore the gray areas of issues.

Criteria Building: Criteria building asks students to form a set of criteria for evaluating a particular object or text.

Reviews: Brief analyses of a text or texts based on an explicit set of criteria developed by you or in a discussion with the students.

Notes and letters: A good collaborative activity, you can have pairs or groups of students write notes to one another explaining or summarizing a concept as well as any problems or questions they had. The students then trade responses to the notes.

Cases and Simulations: Giving students real-world based problems and asking them to apply whatever principles you expect them to understand is an effective way to get students to engage their critical thinking skills.

This list highlights key strategies that have been developed in guides written by Bean (see 1996, ch. 6), Susan Leist (1997), Barbara Walvoord (1980), and Art Young (1999). But it only provides a partial picture of a range of activities. You will find more informal writing activities, specific examples, and detailed instructions in these guides. We encourage you to consult them. One common informal writing activity not listed, for example, is the journal. You might consider asking (i.e., requiring) that students maintain a journal to record all of their in-class and out-of-

class informal writing. You can ask students to write a certain amount of pages per week, be it summarizing lectures, engaging readings, generating ideas, and so on. You might structure journal writing more by providing them specific questions to prompt their reflections. One popular version, the double-entry notebook, asks students to summarize lectures and readings on one page of the notebook while on the opposing page, they more open-endedly respond to the course content by freewriting, question-posing, etc. The journal is thus a versatile tool that accommodates a range of informal writing activities (see Fulwiler, 1987). You can also think of how these various freewriting activities can translate into electronic mediums for communication, like e-mail, discussion lists, or synchronous chat spaces. Notes and letter-writing activities are particularly well suited to e-mail, but there have been a host of other specific adaptations to particular contexts (see Reiss, Selfe, and Young, 1998).

In-class freewriting activities involve students taking a few minutes at the start, middle, or end of class to synthesize what they have gleaned up to that point. Tell students they should write quickly and efficiently, not worrying about surface-level correctness. The goal is to stem the flow of information and provide students the opportunity to reflect on lectures, readings, or activities. This "processing" time can increase retention. Also, knowing they will be asked to do this forces students to prepare more thoroughly and listen more actively. You can ask students to list questions that they have, create lists of key features of some feature, define key terms, or tell you who/what/where/when/how. These simple tasks—replacing passive note taking—are the building blocks for higher-level thinking and help students engage the issues of the course.

Student responses may at times be fragmentary, but the act of writing will help them begin to articulate their thinking and allow you to design more effective classroom activities. A knowledge probe is an excellent pre-writing activity for students trying to develop ideas for research projects. You can ask students to write a knowledge probe on their topic that you can collect and respond to quickly and efficiently. This helps students focus more effectively on their research and provides you with a quick overview of their projects. Summarizing activities help students re-define key concepts or ideas by putting them into their own words. This kind of translation helps students demonstrate a more complex understanding because they have incorporated the material enough to think of it in their own terms, rather than just the regurgitation of textbook definitions.

Informal writing assignments are also effective for facilitating class discussions and small group collaborative activities. You can have students read aloud from their writing, or you can give peer groups tasks that require them to record answers to pre-determined questions in preparation for sharing their results with the whole class. In either case, no student should be without anything to say, provided they are using the class time to record their thinking.

There are a variety of alternatives for evaluating these assignments. As we mentioned earlier, you should certainly hold students accountable for any informal writing you ask them to do. If you don't hold students accountable, they will quickly figure out what "counts" in your class and act accordingly. You also do not want students to perceive freewriting activities as busy work or some "add on" to what really is important. A basic system is to use a plus/minus grading scheme and count informal writing assignments as a portion of the overall course grade. You can collect the students' writing and glance through them quickly to determine how well students understand whatever it is you want them to understand. Your review can be minimal, ensuring that individuals and the class as a whole are working hard and have a grasp of the basic premises. Or you can pick them up and read them at your leisure in order to gauge overall understanding, overall preparation for class, and/or particular aspects of the work that seem to be troublesome to students. Comments can be added in whatever amount of detail you feel appropriate and timely. You can add an evaluative dimension to such assignments by using a minus/check/plus grading system. The checks/minuses/ plusses can be translated into letter grades, with a certain number of plusses equaling an "A" and so forth. This way you can differentiate students' performances more and justify spending more time on the assignments.

We hope we have helped you see that the paper load of informal writing is manageable. "The key" for managing the paper load, Bean writes, "is to decide how much time you are willing to spend on student writing and then plan your courses to include only what you can handle—always remembering that you do not have to read everything that a student writes" (p. 11). Above all, remember that you should never count students' mechanical errors in their freewriting against them. Informal writing activities are intended to emphasize, not inhibit, exploration and idea testing. Your focus should be on both the content of their answer and the quality of their thinking. Formal assignments, as we will explain in the next section, are designed not only to represent critical thinking, but how well students can communicate their insights and arguments to others.

Formal Writing Assignments

Formal writing, unlike informal writing, calls for "finished," "polished," or "manuscript" quality writing. As you know from your own experience, this kind of writing often requires several revisions. Moreover, these formal writing assignments should provide numerous opportunities to help students fundamentally improve their thinking and writing. Ideally, as Capossela states, a formal writing assignment in a critical thinking classroom "involves both affective and intellectual dimensions, is sensitive to context, and extends the writer's ability to delay closure, entertain contradiction, and deal with uncertainty" (p. 7). In this respect, we argue that the formal writing assignment should do more than just provide a "hoop"

for students to jump through, for any extended research activity should promote critical literacy for students and help them see how information is used in academic classrooms and as a daily part of their lives outside the classroom. What distinguishes the formal writing assignments that we will describe is the emphasis on the relationships among writer, reader, text, and context, "and most important, its understanding of these relations as dynamic and dialectical, not fixed ·and unproblematic" (Jenseth, 1993, p. 131). Most importantly, however, you can ask students to do all of this without being overwhelmed by the paper load so often associated with these end-of-term assignments.

In the following section, we will describe a general pattern of development that the critical thinking teacher can follow. This pattern includes the following components:

- Establish a reason for the assignment that meets your pedagogical goals

- Determine the skills that you feel students should develop in doing a long-term research assignment

- Determine information-gathering and research techniques that you believe students need to learn

- Select a topic that students can explore in detail and that will have some meaning to them

- Design a separate assignment handout that provides students with all of the relevant details

- Plan for students to write for an audience other than yourself, whether they choose themselves or you put them in a role, generally one of more knowledge/power than their audience

- Create prompts to initiate student thinking about the topic

- Develop in-class and out-of-class activities that help students develop particular skills and lead them to the final product

- Incorporate the activities for the assignment into the curriculum so that they coincide with critical thinking issues discussed in class

- Involve students in the planning, reading, and responding associated with any formal writing assignment

Our description of this pattern will take the form of an extended example that follows a typical critical thinking teacher—Dr. Jones—incorporating a semester-long formal writing assignment into her curriculum.

Dr. Jones begins with the pre-semester preparation. She is convinced that a long-term research assignment used effectively can provide her students with real applications of the critical thinking strategies that she teaches in her course, but Dr. Jones feels that student writing skills are poor at her university and that stu-

dents don't get enough practice writing, especially argumentative writing. She wants her students to be able to articulate their arguments and be able to counter anticipated arguments from specific readers, so she decides to use writing as a primary tool to help her students improve their critical thinking skills. As a teacher, she is also committed to an interactive classroom, and so a primary goal for her is to use this long-term research assignment to provide a variety of opportunities for students to interact in small groups and as a way to initiate whole class discussions based on student work. She knows that there are a variety of informal writing activities that will help students generate ideas for a longer paper and still allow her to meet all of her own pedagogical goals for her critical thinking classroom.

Once she has articulated her personal and pedagogical reasons for using a research assignment, Dr. Jones begins to list skills that she believes a long-term writing assignment can promote for her students. She lists skills such as argumentation, persuasion, audience analysis, summarizing, synthesizing, defining, and thesis development. Dr. Jones does not consider herself a "writing" teacher, so she doesn't include grammar or editing skills as a part of her list (see Bean, Chapter 4 for a good discussion of dealing with issues of grammar and correctness). Each of the skills that she does list, she believes, is important developmentally for the students in her critical thinking classroom. Obviously, argumentation and persuasion are the backbone of her course, but she promotes equally the idea that students must know their audience and must understand alternative perspectives when developing effective counterarguments or anticipating possible objections to arguments. Summarizing and synthesizing are both important not only in developing arguments but understanding arguments, as well. Dr. Jones wants her students to be able to articulate their own arguments in a concise fashion but also be able to distill the complex arguments of others for a more clear understanding (see Fulkerson, 1996, for a more in-depth discussion). Likewise, to define is to present concrete information that a reader can readily understand. Argument development is ultimately tied to a student's ability to define complex terms and provide cogent examples that aid in the definition. Finally, Dr. Jones is adamant that her students be able to present a clear and concise thesis in a paper; for she believes that only from a clear thesis can an effective argument grow.

After determining the skills she wants students to develop, Dr. Jones focuses on the kinds of information gathering strategies she hopes to promote over the course of the semester. She is a firm believer that effective student papers grow out of a student's ability to select the best information from a variety of sources. She wants students to have more information than they need rather than create a paper from the first thing that comes to mind or the first source that shows up in a Boolean search. She is particularly interested in students analyzing the products of culture (which means just about any feature of a culture that is produced for consumption) and understanding the explicit and implicit arguments present in these products. So a primary information-gathering technique for her students will

be an ability to analyze, summarize, and synthesize information gleaned from a study of cultural products. She also wants her students to be able to interrogate their own knowledge of a particular topic for both depth of understanding and the inherent biases they may hold. In other words, she wants to use a variety of prewriting strategies—such as freewriting, clustering, and outlining—to assist students in generating as much information as possible. Finally, she wants students to be able to find secondary sources at the library to use as evidence for their arguments.

In order for her students to develop their critical literacy, Dr. Jones decides to ask students to produce an in-depth cultural study of some form of advertising: print, television, internet. She wants her students to explore issues of society and culture in complex ways within a specific context. Her students will develop materials that are persuasive for particular readers, but she wants them to decide who these readers should be. For her, this long-term assignment should help students synthesize personal knowledge into writing, analyze and summarize specific cultural texts, understand rhetorical conventions of audience and purpose, and logically develop an argument in terms of a particular context. To produce these materials, Dr. Jones wants her students to analyze a series of ads in terms of their cultural components and create an argument that justifies their "reading" of the ads to a specific reader or readers.

In designing her assignment handout, Dr. Jones begins by outlining the important details that students need to understand in order to successfully complete the assignment: *assignment description, key terms or concepts, goals/objectives of the assignment, due dates for drafts, length of paper, research expectations, invention prompts, evaluation criteria,* etc. Moreover, her assignment sheet will also provide a justification for the assignment and a description of what their papers are supposed to achieve. Dr. Jones knows that many of the problems with student writing can be traced to ambiguous assignments, so she pays particular attention to communicating her goals, learning objectives, and the criteria that she will use to evaluate the writing for the assignment. Since students have difficulty writing to teachers, who have more knowledge, Dr. Jones plans on allowing students to choose their audience for this paper, with the condition that they direct their response to one of a number of local publications for college-age readers drawn from a list provided by her. Dr. Jones wants her students to do at least one analysis in terms of cultural codes, which she describes in her assignment sheet as follows:

Ad Analysis Research Project

Cultural codes are the building blocks of all cultures. Another way to think about cultural codes is through the terms "stereotype" and "expectation." In other words, cultural codes are implicit and explicit stereotypes and expectations we, as members of a culture, usually have (whether we like to think so or not) for other members of this culture. Think about the

stereotypes our society has for women, men, minorities, teenagers, rich people, poor people, elderly people, overweight people, gay people, etc. Thus cultural codes can categorize (or be categorized) by gender, race, class, age, appearance, etc. The same can be said for any professional or academic culture, only the stereotypes may be constructed along different lines or for different reasons. In any case, these codes are present in all writing (all texts), defining what is assumed, what is valued, what is privileged by the author (and in many cases, by the culture). An analysis of cultural codes examines discourse in terms of these codes. On the last day of classes before finals, you will submit a thoroughly researched analysis of the cultural codes embedded in a popular advertising text of your choosing.

Thus Dr. Jones sets an initial point of departure for her students to explore in classroom discussion. Similarly, Dr. Jones provides students with a series of prompts to initiate their thinking and help them generate information:

You must interrogate each ad. One way is to ask questions of it:

- Who is the target audience?
- How is that audience presented?
- What is the purpose of the ad?
- What cultural codes does the ad privilege?
- How do these cultural codes function in the ad?
- Why do they function as they do?
- What are the conflicts or contradictions prevalent in the ad?

Once you've analyzed your ad and developed material, you should consider yourself an expert on this particular advertisement, but you also need to think about the research paper in terms of your designated audience and context:

- What is your purpose for writing?
- What do you wish to accomplish?
- Who are you as a writer?
- Who are your primary and secondary readers?
- What is the relationship(s) between writer and reader(s)?
- What form should the text take? What should it look like?
- How can you most effectively arrange the information in this text?

She also presents a set of evaluation criteria as a series of questions, such as the following:

Possible Evaluation Criteria

When evaluating your work, here are possible criteria:

- Is the text focused on particular ads?

- Are the ads described adequately?

- Does the writer explain the significance clearly?

- Do the examples develop and support the thesis?

- Does the writer use research to effectively support his/her arguments?

- Does the writer account for the audience in the text?

- Is the text organized effectively?

- Is the language appropriate for the rhetorical situation?

Again, Dr. Jones presents a set of criteria that she and her students can discuss in the classroom. In this way, students are clear about what they are expected to do and how their work will be evaluated.

To finish the assignment handout and plan her semester, Dr. Jones devises a plan for spreading long-term assignment activities throughout the semester. She wants her students to go through a process for developing their papers because this will allow her to intervene at key moments. She knows that interacting with the students and their work throughout the writing process will produce better papers but will also potentially reduce the amount of time she spends grading work at the end of the semester. She also wants her students to go through a process so that she can plan in-class activities that lead students to a final paper of better quality, but she also wants to involve students in the planning, reading, and responding to work to give them responsibility for producing the work without being overly-dependent on her as the teacher. Moreover, she wants her students to be writing and thinking in ways that coincide with the critical thinking issues that will be discussed in class.

Dr. Jones teaches a Monday/Wednesday/Friday schedule, and she plans on spending at least one full class period at the times that she has designated for working on the research paper. Since she expects her students' papers to be 12 to 15 pages in length, she plans to distribute the writing activities at the following times during the semester:

Second Week of the Semester: Introduce the assignment, analysis strategies, and possible audiences; discuss assignment in terms of critical thinking principles; conduct prewriting activities.

Fourth Week of the Semester: Analyze sample advertisements; model analytical strategies based on critical thinking; discuss research strategies (possibly taking a trip to the library and meeting with a reference librarian); discuss organizing arguments and the larger paper; prewriting and planning activities.

Sixth Week of the Semester: Draft ad analysis papers due for peer response in the classroom (based on stated evaluation criteria); collect draft ad analysis papers for her response.

Ninth Week of the Semester: Provide general comments to the class about ad analysis papers; use sample student work to highlight strengths and weaknesses of student work; models her responses for future reference; planning and drafting activities.

Eleventh Week of the Semester: Draft of full paper due for in-class peer response; discuss evaluation criteria and provide models; students respond to each other's work.

Twelfth Week of the Semester: Collect drafts revised from peer responses; respond to specific features (without editing).

Fifteenth Week of the Semester: Final draft of paper due in class.

In the second week of the semester, Dr. Jones wants to distribute the assignment handout and discuss it in detail with the class. At this time, she will also introduce them to the idea of cultural analysis and present some simple strategies. Of course, her discussion will build on the critical thinking principles that she has discussed in class, and she will ask them to apply these principles to thinking about these texts. In this way she will be giving them concrete examples to work with. Based on these strategies, she plans on asking students to do prewriting activities based on personal experience. She will use these to generate class discussion about how advertisements affect our lives on a daily basis. Moreover, these prewriting activities will also work to help students understand the long-term research assignment more completely. Dr. Jones follows up these prewriting activities by asking students to read a collection of scholarly critiques of advertising culture for discussion in the third week.

During the fourth week of the semester, Dr. Jones will ask students to bring in sample advertisements that they like from television, magazines, or the Internet. She will bring in her own sample advertisements, as well, and model analytical strategies based on the critical thinking principles that they have been discussing in class. She will then ask students to analyze their advertisements to share in small groups or with the class. After they have performed their analyses, she will talk about the larger paper. She will describe ways to organize arguments in written academic texts, and she will also discuss ways to organize a large research paper. She plans on taking her students to the library during this week in order to meet with a reference librarian who can describe the kinds of research that students can perform to complete their papers. Here Dr. Jones will provide an opportunity for students to begin planning the kinds of research that they will need to perform during the course of the semester to produce a successful paper. Finally, students will do prewriting activities that will help them articulate audience and purpose for the paper, as well as prewriting activities that will help them begin planning the document. At this point she will ask students to bring a draft of an ad analysis to class for peer response during the sixth week.

During the sixth week of the semester, students will bring a draft of an ad analysis for in-class peer response. This draft does not need to be more than 2-4 pages, for she is certain that she does not want a draft of the entire paper at this time. Instead she wants students to begin thinking and writing the paper so that students will not wait until the last minute (which she knows from experience leads to some of the poorest writing she has ever read). Basically, she just wants a sample ad analysis to be sure that students understand the concepts. She creates a brief handout that lists the evaluation criteria, and in class she explains how to use the criteria when responding to each other's work. Since the criteria take the form of questions (see above), she feels that this should prompt the students enough to respond (somewhat) effectively. She will also collect a copy of this draft so that she can read and respond to their work. However, she knows that she will only review their work to be sure that they are on the right track with their analyses. She will note students who are struggling with the concepts and will make arrangements for individual conferences. Similarly, she will note students who have major grammatical problems and will recommend that these students visit the University Writing Center to develop strategies for overcoming their grammatical shortcomings. At the same time, she will make general notes to herself about strengths and weaknesses in the students' writing that she will discuss with the class as a whole.

In the ninth week of the semester, Dr. Jones will discuss her general impressions of the students' work with the class. She plans on using samples from their texts to highlight their strengths and weaknesses. In this way she will model her responses and help students understand the features of good writing that she deems important. Also, these models of actual student work can help her explain explicitly how good arguments are constructed and why poor arguments are not as effective. Finally, she will discuss strategies for developing these short papers into a longer work. Based on the drafts that she has read, she will help students develop their thinking by asking them to do both prewriting and planning activities from prompts that she has created and that are designed to help them generate information for expanding their work.

During the eleventh week, she will ask students to bring a full draft of their paper to class for peer review. Again, she prepares a handout which contains evaluation criteria and which they discuss in detail so that students will understand what is expected from the paper and what they should be looking for as they review each other's work. The students will then spend an entire class period doing peer review. Dr. Jones will be moving about the room and providing hints and assistance, but at this point she wants the students to take responsibility for helping each other improve their papers. At the end of the peer-review class, she asks students to revise their work based on their peers' comments and to submit a full draft to her the following week.

In the twelfth week, Dr. Jones will collect the revised drafts for her own review. As drafts, she only plans on responding based on the evaluation criteria

that she and the class discussed. She doesn't plan on doing much editing, unless the paper is unreadable. But she hopes that all of the peer response will overcome these kinds of major problems with grammar. Her primary objective at this point is to help students refine their arguments, develop appropriate details, and meet the criteria for a successful paper. Dr. Jones feels that all of the comments that she has made on papers in the past that were turned in at the end of the semester were either ignored or went unread because students had no motivation to revise a paper after the semester was already over. This semester, however, she will tell the class that she will be doing her primary commenting on their drafts at this time because she wants them to be able to revise based on her insights.

She collects the final papers during the fifteenth week of the semester. But since she has already seen multiple versions of the paper, she knows that she will only need to read through them and assign a grade. Since it is the end of the semester, she knows that she will not have to spend a lot of time commenting or justifying her grade; however, she will tell students that if they wish to discuss the grade that their paper received in more detail, she will be happy to meet with them in her office the following semester (for more on grading writing assignments, see Angelo and Cross, 1993; Cooper and Odell, 1999; Walvoord and Anderson, 1998; Zak and Weaver, 1998).

Dr. Jones elected to design a more effective semester-long formal writing assignment, but another effective use of formal writing is to break up the traditional semester-long paper into a series of shorter, formal writing assignments. You can "formalize" many of the informal writing activities we discussed earlier into polished, graded responses that range in length between one to five or six pages. This way, the traditional 15-page paper can be split up into a series of smaller assignments (that are faster to read and dispersed throughout the semester). You can have students respond formally to open-ended questions, evaluative questions, case simulations, etc. One popular short formal writing activity is the "thesis support" assignment, which asks students, in several short essays, to support either side of a series of progressively more complex issues, beginning with, for example, "The Market is/is not efficient in strong-form, random-walk terms" and ending with "Random diversification is/is not more reliable than selective diversification" (Bean, 1996, p. 74). In this way, you can use formal writing to help students understand increasingly more difficult concepts—at the same time saving yourself the burdensome paper load associated with the traditional end-of-term paper.

In designing formal writing assignments, there are a variety of resources for developing semester-long and sequenced approaches for your classroom (Angelo & Cross, 1993; Bean, 1996; Black et al., 1994; Capossela, 1993; Jones, R., Bizzaro, P., and Selfe, C., 1997; Young, 1999). And while these books can provide you with a wealth of information, we want to emphasize that planning long- and short- term research assignments is the most important thing that you can do. The more that you prepare, the more that you design activities to coincide with the learning objectives of your course, the more that you ask students as a community to

participate in the planning, reading, and responding to their work, the more often you review (as opposed to evaluate) student writing, the more rewarding your experience will be.

Conclusion

We cannot lie and report that incorporating more writing-based pedagogical strategies will be less work. But we can say that students' participation and performance increases and that teachers tend to report a higher level of teaching satisfaction (Walvoord et al., 1998). Most teachers who begin to experiment with informal and formal writing in the classroom typically find themselves gradually increasing the amount of writing they ask students to do. Moreover, they typically find themselves spending more time reading student writing. They do this because, once they shift their perspective toward seeing how writing reflects critical thinking, it becomes more pleasurable to see the students' critical thinking abilities develop. And you can find ways to spend more time engaging with your students via writing by cutting down on other required activities or assignments and instituting shorter, more manageable informal and formal writing activities.

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