



Online Ethics Center  
FOR ENGINEERING AND SCIENCE

# Using Short Writing Assignments in Teaching Research Ethics

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## Description

Regularly asking students to write down their thoughts and reactions to class readings and discussions is an effective method of teaching and assessing student learning. Furthermore, as composition teachers will attest, frequent writing assignments, regardless of content, dramatically improve writing skills. Asking students to think “on paper” about topics encountered in the classroom encourages them to think about those topics in greater depth, relate them to their own lives, and thus connect the classroom to the world outside.

## Body

### Freewriting

Using freewriting at the beginning of class can effectively prime the pump for discussion. It works best if it is used frequently because students need some practice to get the full benefit.

At the beginning of class, students are asked to write for a specified period of time – say, five minutes. Many students will only write a half-dozen sentences or so in five minutes, so you should time it by the clock, **not** by how long it **feels**.

Freewriting can almost take the form of free association. The teacher should write as well, and students should be told to write for the whole time, whether they think they have anything to say or not. I tell my students, “If you can’t think of anything to say, write, ‘I don’t have anything to say.’ You won’t write that very often before you think of something more interesting to write.”

By its nature, freewriting should not be graded, but it should, be read, and probably should be commented upon. It can be a good idea to keep an informal record of students’ writings; whether their writing is improving, about how much they write, whether they seem to write as well as average. Keeping notes like these can help you identify which students need additional help.

I learned about freewriting when I taught composition. The goal of that class was, obviously, to attain skill at writing. Thus the **content** of freewriting is irrelevant; it is **the practice in writing** that matters. Frequent freewriting will improve most students’ writing skills, even if students are given no feedback on grammar, spelling, or the other technical aspects of writing.

At a minimum, freewriting helps students make the transition from the bustle of the world outside to the world of the classroom. At best, it can greatly improve class discussion and provide valuable feedback to teachers on how well their students are doing.

## **The non-quiz**

While freewriting works exceedingly well in composition classes, it probably needs modification to adapt it to other courses. Instead of allowing students to write anything that comes to mind, simply asking a question for them to write about changes freewriting into a non quiz. The question should be based on class discussion or an assigned reading; for example, “How does the writer think authorship of a paper should be assigned?” or, “What was the writer’s strongest argument for the use of animals in scientific research?”

Since this is a non-quiz, make it clear to your students that their responses will not be graded. Answering the question should be optional; they can also write about

some other aspect of the reading if they choose. (I am not arguing against using graded quizzes, of course, but the informality and non-threatening nature of the non-quiz makes it productive in ways that graded quizzes are not.)

## **The one-minute paper**

I learned about this strategy, which is similar in some ways to the non-quiz, from a report on assessing teaching and learning at Harvard. Richard J. Light, "The Harvard Assessment Seminars: First Report, 1990," Harvard University, pp. 36-38. It is particularly effective in helping you gauge students' understanding in lecture-oriented classes.

At the end of class, take a minute to ask your students two questions: "**What is the big point you learned in class today?**" and "**What is the main, unanswered question you leave class with today?**" The students submit their answers anonymously.

Like freewriting, the one-minute paper works best if used frequently; indeed, it is probably optimal to use it every day. The Harvard report observes that after writing the one-minute paper for a few weeks, students began to think during class about what they would write. Instead of allowing information to flow from the teacher's mouth onto the note pad without stopping along the way, students began to listen to what was being taught so they could evaluate what was most important and what they did not understand.

Answers to the first question allow teachers to keep track of whether what **they** think is important matches what the **students** perceive as important. Teachers often begin the next day of class by addressing at least some of the issues raised in students' one-minute papers.

Another strategy is to ask a question or two about the substance of the lecture or discussion, such as, "What do you think is the most important argument for informed consent?" (This is similar to using a non-quiz at the end of the class instead of the beginning.) The one-minute paper can also be used effectively to elicit final thoughts on case studies discussed in class, for example. The questions can be adapted in numerous ways to meet a variety of goals.

Keeping the one-minute paper informal and non-threatening is essential to its success. If anonymous submissions seem too informal, you can ask your students to

include their names, and you can keep track of who seems to be having the most trouble so they can get extra help.

## **Logbooks**

One key difference between in-class writing assignments and logbooks is that, with logbooks, students can see their own progress through the course. Students should keep their logbook in one place, probably in a three-ring binder or electronic conference (more on this below), and they should be encouraged or required to read through it at least once during the semester (if only once, near the end, obviously).

Here are a few rules of thumb for using logbooks in the classroom.

*(1) Don't call it a journal or a diary.* It's important for students not to think of a class logbook as a record of their secret thoughts and wishes, nor an account of what they did last weekend or hope to do this afternoon. The logbook is personal, of course, but it is also public; it will be read by the teacher, and it is sometimes helpful to let students read each other's logbooks. If you call it a diary, students will make entries about their love life, which courses they like and which they hate – anything but the topic of your class. Calling it a journal can be more effective, but still implies the personal a bit too strongly to many students. I use the term “logbook,” and make an analogy to a captain's log on a ship (even if it's the Enterprise or Voyager): The logbook is a place to keep a record of the student's intellectual journey through a class.

This last point, of course, is the important one; call it anything you want, but make sure your students understand what kinds of entries are appropriate.

Sometimes students have a hard time understanding assignments like, “Write whatever you think is important or interesting.” It is often a good idea to give them two choices: To write anything they want, or to respond to a particular question (or one of two or three questions) associated with a given class session.

*(2) Require frequent, short entries.* Two or three 500-word entries per semester do not qualify as a logbook. The point is to get your students writing regularly and frequently, in part so you can track their progress.

How often is often enough, and how often is too often? The answers will vary depending on the level and content of the class, how often it meets, the goals for

keeping logbooks, how much other work the students are required to perform, and similar considerations. I would not bother using a logbook if I were not willing to have my students make at least one entry per week. On the high end, I have had students make two logbook entries for every class meeting – one before the class reflecting on the readings, one after responding to class discussion or lecture. This works well for classes meeting once a week; for classes meeting twice a week, it is a demanding but rewarding assignment; for classes meeting three or more times a week, it is probably asking too much.

The length of entries also varies according to all the factors listed above. I generally try to require my students to write a little more than they find easy or comfortable; I believe that being urged to write an extra one hundred or two hundred words can help students come to new insights. If they only write as much as they can quite easily come up with, they do not stretch to think more deeply about the topic or make more insightful connections.

*(3) Read and respond to logbook entries frequently.* Logbooks can be useful if you only collect them once or twice during the semester, but their utility increases proportionately to the frequency of your collecting, reading, and commenting on them.

If you have access to an electronic conferencing system (or bulletin board system) In the course described, I used VAX Notes, which I believe to be the original electronic conferencing system. It is very clunky and awkward and there are much better alternatives available now. Which should you use? The one (or best one) supported by your college or university. Newsgroups and e-mail can also be used for electronic conferencing such as Blackboard or WebCT, you might use it to speed up your response time. You can check the conference daily or every other day and make your comments on-line. Your students will not have to wait half a week between handing in their logbooks and getting your feedback, you will not have to carry a stack of logbooks every few weeks, and you will have a smaller number of entries to read each time. Most electronic conferences can be configured to allow students to read and respond to each other's entries, or to prohibit this ability.

In my experience, using an electronic conference is vastly superior to using paper logbooks. In both cases, students learn a great deal from making the entries, but I have observed that students do not realize how much they have learned from a paper logbook. Paper logbooks are almost universally condemned in course

evaluations. The first time I used an electronic conference, every student, including the ones who I knew did not like the course very much and did not enjoy writing logbook entries, praised the logbook as one of the most useful aspects of the course. Almost without exception, students recognized that the electronic conference helped them improve their writing and critical thinking skills. This is the only aspect of any course I have ever taught that got unanimous praise.

I cannot fully account for the difference in student response to paper versus electronic logbooks, but I think three factors played a significant role:

1. Students read each other's entries and saw how much their colleagues progressed.
2. I naturally respond at greater length when I type than when I scribble in the margins.
3. There is no easy way to mark minor writing errors on most electronic conferences. Instead of having their paper marked up with brusque notations like "awkward" or "wrong word" or "sp," students using an electronic conference typically see responses to their **ideas**. And their writing still improves without the nagging.

In a later class, I responded to students' ideas on-line and printed their entries and marked stylistic and grammatical problems by hand. Thus students got the good stuff - my response to their ideas - before they got the bad stuff - the nagging about style and grammar - and the two kinds of responses were clearly separated. As you may recall from your own days as a student, it is very frustrating and confusing to get a paper back marked with dozens of grammatical or stylistic "errors" and to read at the end, "Great work!"

Barring use of an electronic conference, you might enjoy some of the same benefits from getting students' permission to read or distribute selected entries to the entire class. Students learn a great deal from seeing that other students react in a variety of interesting ways to the same material. They encounter new models for possible emulation and learn that reasonable people can hold differing views.

*(4) Write supportive, positive comments that engage the students in a dialogue.* Emphasize that the logbook is a safe place; grades for logbooks should only be based on whether the required number of entries is made, and whether those entries are as long as required, not on their content. Keeping a logbook creates an

opportunity for students to speculate, perhaps wildly, and to do so they must have the freedom to venture down what might turn out to be an unproductive path. To encourage students to reveal what they do not know, responses to student entries must be supportive and phrased in a positive manner. When you wish to challenge the student's view, try stating the challenge as a question: "What is X's point of view?" or "How would you take Y into account?"

If you decide to use the logbook in a more formal assessment of learning, consider these strategies:

1. Have students pick a few of their entries once or twice during the semester to hand in for formal evaluation. This way, students are given a great deal of leeway and they have the leisure and confidence to experiment, but they still have the expectation of facing a real evaluation eventually. It is analogous to having your students write many drafts, but only grading the final draft; in the case of the logbook, the students decide which of the entries count as final draft.
2. Have students select a few entries once or twice during the semester and write a formal paper summarizing, synthesizing, and analyzing the entries. In this case, the analytical paper is evaluated; the selected logbook entries may be evaluated or not, depending on the goals of the assignment. The goal can be to get students to track their own progress through the course, or simply to comment on the entries they think are good, and why they think so. An example of the former would be to ask your students to choose the most difficult ethical problems discussed in class and write about how the issues have been clarified for them.

### **Two variations on logbooks**

I have not used the following techniques, but they come highly recommended.

*Sequenced micro-themes.* Students write a series of very short (200-500 words) directed essays. Each essay in the sequence builds on the previous essays and calls for a more sophisticated set of skills. At each stage, the topic of the essay is discussed in class. A sample sequence might look like this:

1. State your stand on using animal subjects in research – are you for it or against it? Give a few reasons supporting your stance.

2. Read the University's policy on using animal subjects in research. Summarize the most important points.
3. If you are in favor of the use of animal subjects in research, identify the single strongest argument you know against using animals and make a strong counter-argument. If you are opposed to the use of animals in research, identify the single strongest argument for animal use and make a strong counter-argument.
4. In light of discussion after essay three, how would you suggest improving the University's policy on animal use?

Successive essays can be longer, perhaps culminating in a full-fledged term paper.

*Small group logbooks.* Instead of having all students keep a logbook every week, assign students to groups. Each group is assigned one or more weeks or class sessions, and they are responsible for writing a short response to the readings for that session. The group's response is duplicated and distributed at the beginning of class to spur discussion.

## **Sources**

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## **Notes**

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My teaching and thinking about teaching have been influenced by many great teachers and good friends; of the ideas presented here, I am not always sure which are original to me and which I learned elsewhere. My best teacher was the late Robert A. Guptill; some of my best interlocutors on teaching have been Patricia E. Sawin, William F. Guinee, and, especially, Jennifer E. Livesay. Thanks to Sandy Borden, David H. Smith, Karen M. T. Muskavitch, and Muriel J. Bebeau for comments on the first draft of this essay; I have made some improvements and additions thanks to the feedback of Teaching Research Ethics Workshop participants.

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