

From Bean, John. (2001). *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom*. pp. 123-131. San Francisco: Jossey-Bass.

Ten Strategies for Designing Writing Assignments that Engage Students in Critical Thinking

1. **Tasks that Link Course Concepts to Students' Personal Experience or Previously Existing Knowledge.** Good for engaging students' interest in a problem or concept before it is introduced formally in class or in readings and/or for helping them to see a connection between the concept and their personal experience.

Math example:

Think of examples of your own personal experience to illustrate the uses of vector algebra. You might consider such experiences as swimming in a river with a steady current, walking across the deck of a moving boat, crossing the wake while water-skiing, cutting diagonally across a vacant lot while friends walk around the lot, or watching a car trying to beat a moving train to a railroad crossing. Use one or more of these experiences to explain to a friend what vector algebra is all about. Use both words and diagrams.

Philosophy example:

What are your current views toward what it means to live a full life? What specific things do you have to attain and work for in order to live as full a life as possible?

2. **Explaining Course Concepts to New Learners.** Give students a teacher's role, making them search for ways to tie the course concept to the knowledge base of the hypothetical reader.

Physics example:

Explain to your mother why water stays in a pail when swung in a vertical circle around your head.

Nursing/Nutrition Science example:

Using a layperson's language, explain to a new diabetic what is meant by the glycemic index of foods and why knowing about the glycemic index will help the diabetic maintain good blood sugar levels.

3. **Thesis Support Assignments.** Give students a controversial thesis to defend or attack.

Nursing/Medical Ethics example:

People suffering from schizophrenia or manic-depressive disorder should/should not be forced to take their medication.

History example:

Read the accompanying handout on how historians evaluate the credibility and reliability of primary documents. Based on the criteria set forth in the handout, determine whether Pericles's Funeral Oration is/is not reliable evidence.

4. **Problem-Posing Assignments.** Give students a question that they have to try to answer through thesis-governed writing, exploratory writing, or group problem-solving.

Physics example:

An hourglass is being weighed on a sensitive balance, first when sand is dropping in a steady stream from the upper to lower part and then again when the upper part is empty. Are the two weights the same or not? Write an explanation supporting your answer to this question. Write to a fellow student who is arguing for what you think is the wrong answer.

5. **Data-Provided Assignments.** Students determine what thesis or hypothesis some given data might support. Useful in the sciences for helping students learn how to write the "findings" and "discussion" sections of scientific reports.

Economics example:

To what extent do the attached economic data support the hypothesis "Social service spending is inversely related to economic growth"? First, create a scattergram as a visual test of the hypothesis. Then formulate a verbal argument analyzing whether the data do or do not support the hypothesis.

6. **Frame Assignments.** Provide the topic sentence and the major transition words as an organizational frame for an argument that students have to flesh out with appropriate generalizations and supporting data.

Literature example:

In the last act of *Hamlet*, Hamlet seems to have changed in several ways. First, Hamlet [development]... Second, Hamlet [development]... Third,... Fourth...

Sociology example:

To solve the problem of homelessness in America, we must realize that not all homeless fit into the same category. In fact, we ought to specify X categories of homeless. First, [development]... Second, [development]... Third... Fourth...

Philosophy example:

Socrates and the Sophists differed in their beliefs about truth. On the one hand, Socrates argued that [development]... The Sophists, on the other hand, argued that [development]...

7. **Role-Playing or "What If"-type Assignments.** Require students to take on a "disorienting" perspective as a way to encourage them to stretch their thinking.

Art History example:

Look at this prehistoric cave painting [attached reproduction of a photo]. Imagine that you are the Ice Age artist who created the animal painting on the cave wall. What could have motivated you to create such a painting?

History/Philosophy example:

Hobbes said that we are obliged to obey the state only so long as it guarantees our security. How would he react to compulsory military service in time of war?

- 8. Summaries or Abstracts of Articles or Course Lectures.** Develop students' reading or listening skills and helps them to develop skills of precision, clarity and succinctness. A common length for summaries is 200-250 words, but an alternative is to require one-sentence summaries or 25-word summaries. The shorter summaries require students to be concise. Requiring exactly 25 words requires students to weigh the value of each word and play with the sentence structure.

Biology example: Write a four-sentence summary of the attached scientific paper, one sentence for each section of the paper. Follow that by four questions that the article raises in your mind.

- 9. Dialogues or Argumentative Scripts.** Allow students to role-play opposing views without having to commit to a final thesis.

Political Science example:

Write a short dialogue (two to three pages) between a neo-elitist power theorist and a pluralist. First take the role of the neo-elitist (be an intellectual son or daughter of Ganson) and explain to this poor, unenlightened pluralist the meaning and importance of the concepts of predecision politics and the mobilization of bias. Respond to this radical fluff in the role of a Yale pluralist. Continue the dialogue by alternating roles; be sure to respond in the role of one theorist to the arguments raised by the other.

Mechanical engineering example:

For the design application we have been studying, your design team has proposed four alternative solutions: conventional steel roller bearings, ceramic bearings, air bearings, and magnetic bearings. As a team, write a dialogue in which each team member argues the case for one of the alternative solutions and shows weaknesses in the other solutions.

- 10. Cases and Simulations.** Create short cases from recent news stories, campus events, or developments in your disciplinary field. Good cases tell a real or believable story, raise thought-provoking issues based on conflict, lack an obvious or clear-cut answer, and demand a decision reached through critical thinking and analysis. Provide background information on the problem, biographical synopses for each role, and data related to the problem. The assignment can ask students to do the kind of writing appropriate to their role (legal briefs, letters to the editor, proposals, reports to the board, executive briefings, etc.)