

Using Informal Writing and Speaking to Enhance Learning: Twenty-One Strategies

Compiled by Tasha Souza and adapted from Chris M. Anson and Deanna P. Dannels, NCSU
Campus Writing and Speaking Program & Gerald Nelms, Director of SIU Communication
Across the Curriculum

1. Connections

Provide students with the beginning and end of a process, a causal relationship, or an argument. In scientific courses it may be the beginning and end of a design process (the problem and a potential solution), or the beginning and end of a chemical experiment. In math courses, it may be the beginning and end of a proof. In social sciences it may be the hypothesis and potential results from an experiment or the proposition and conclusion of an ideological argument. In a history course, you may give students two potentially related events in history. In an English course you may present students with a character and a character's actions. Have students get into groups and trace or explain how the two elements are related or how one leads to the other (this may look like a series of propositions, calculations, processes, or personal choices). Ask one member of each small group to share his or her findings with the entire class.

- Encourages analytic thinking
- Helps deductive reasoning
- Enhances problem-solving skills

2. Newsworthy Explanations

Ask students to get into pairs and discuss one or two practical applications of the theory you are studying. Then have students write a paragraph that discusses the relevance of this theory. Have students think of this paragraph as the beginning of a newspaper/magazine story--trying to catch non-informed readers' eyes and make this theory important to them. Ask students to share these paragraphs with the larger class.

- Leads to application of theory
- Shows relationship between abstract and concrete
- Encourages clear thinking

3. Unresolved Lab Problems

At the end of a lab period, have students write a list of difficulties or problems encountered during the lab. Then have students exchange these problem descriptions and spend five minutes helping each other solve their respective problems. Unresolved problems should be handed in for discussion.

- Creates context for problem solving
- Facilitates collaborative learning
- Increases depth of understanding

4. Debate on Propositions

On the board, put several pairs of opposing propositions related to the topic of the day or the readings (propositions could articulate possible outcomes of experiments, solutions to problems, or proposed methods of design, for example). Have students individually write for three minutes either supporting or refuting one of the propositions. Then pair students up with someone who wrote on the opposing proposition and ask students to take one minute to present their argument. Then ask students to respond to their partners.

- Facilitates analytical reasoning
- Helps critical thinking skills
- Encourages diversity of thought

5. Mini-Cases

Design short, stimulating case problems from the subject matter. Ask students to respond to the case in one page. You may want to consider designing the case so that students write letters or other documents to “real” audiences. Then get students into pairs and have them discuss their documents with each other.

- Helps abstract reasoning skills
- Emphasizes the application of theory to practice
- Increases problem-solving skills

Example of Mini-Case

Suppose that you are Dr. Science, the question-and-answer person for a popular magazine called *Practical Science*. One day you receive the following letter:

Dear Dr. Science:

You've got to help me settle an argument I'm having with my friend. We were watching a baseball game several weeks ago when this guy hit a pop-up straight over the catcher's head. When it finally came down, the catcher caught it standing at home plate. Well, my friend told me that when the ball stopped in midair just before it started back down, its velocity was zero, but acceleration was not zero. I said, "That's stupid. If something isn't moving at all, how could it have any acceleration?" Ever since then, my friend's been making a big deal out of this. Now we have a bet. We checked some physics books, but they weren't very clear. We agreed that I would write to you and let you settle the argument. Please explain the answer so we both understand, because my friend is very dogmatic, and wouldn't even trust Einstein unless he could explain himself clearly.

Sincerely, Baseball Blues

Can this friendship be saved? Write an answer to Baseball Blues. Space in the magazine is limited, so write only what can fit on a 5X8 card. Try not to use specialized terminology.

6. Voices

Prepare a list of “voices” in response to the reading or topic of the day. These can take the form of quotations as if overheard at a social gathering. Each “voice” makes some statement about a reading. Provide the voices to students either before they do a reading assignment or when they come to class after doing the assignment. Ask students to write brief responses to the voice(s), taking issue with them, agreeing, elaborating, or pointing out flaws in reasoning. In small groups, have students discuss their responses.

- Compels careful reading
- Facilitates expansive thinking
- Encourages multivocality

7. Dialogue Journals

Throughout the course, students keep a dialogue journal focusing on the content they're expected to learn. At the start of the course, students pair off. Just before or after the class session, the students exchange journal entries with their partners. Each successive journal entry may respond to ideas raised in previous entries.

- Creates atmosphere of collaborative learning.
- Encourages critical thinking and reasoning
- Helps to extend, refine, and elaborate the material

8. The Double-Entry Notebook

Students keep a divided notebook or learning log. They are to draw a line down the middle of each journal entry page. On the left side of the page, they are to take “objective” notes on the reading, outlining the text or summarizing the important aspects of it. These notes are meant to

be a record of meaningful information derived from the reading. On the right side of the page, they are to respond “subjectively” to the reading. Their subjective responses can include questions about difficult passages, disagreements with the author(s) of the text, personal experiences that relate to a topic or subtopic of the reading, connections to other readings, etc.

- Asks students to focus actively on materials
- Encourages critical reading and listening
- Creates context for objective and subjective reflection

9. Exam Preparation

A. Circulate a list of conceptually difficult questions focusing on the material in a unit, course, etc. Ask students to write 1/2-1 page explanations for each question. In class, have the students work in groups or pairs; they must read each other's explanations and discuss any differences they see between them. In a follow-up discussion with the entire class, ask for consensus on the toughest questions; then lead a discussion from students' explanations, clarifying where needed and reviewing the material.

B. Two or three class periods before each exam in the course, students bring in questions they have generated from the course material. If the exam uses essay topics, students must generate one such topic. If the exam uses objective-type questions (multiple-choice, true-false, etc.), students must generate three such questions. When the students arrive, they form small groups of three or four and exchange questions. Working their way through the questions, the students discuss possible answers (for essays) or try answering the objective questions and explain their answers to each other. The instructor chooses the best question or two from each group to include on the exam.

- Improves synthetic thinking abilities
- Encourages thorough study habits
- Shifts responsibility of learning to students

10. This Was the Week that Was

Each week, ask a different student or group of students to bring in a newspaper article, magazine story, tabloid article, or current book. The reading they choose should be connected to the topics being studied in class, released within a couple of weeks of the exercise, and something the students find interesting or controversial. For example, if an engineering class is studying “design for the environment,” the students could bring in a newspaper article that reports on a new waste management plant that is focusing on environmental safety, or a magazine article discussing products that are harmful to the environment. Have the student(s) who brought in the article present it to the class. Then have the class write for five minutes on how they see the article connecting with the day's topic. Use students' reactions to begin the discussion.

- Allows for application of course material
- Extends thinking about course content
- Encourages critical reading, listening, and writing

11. Problems with the Problem

Write out a problem from the homework that represents one of the most complex the students will be asked to master. Incorporate two or three intentional mistakes in the problem. These problems could be mathematical equations, proofs, chemical equations, physics story problems, or target specification calculations. Additionally, these problems could be more case-study oriented—illustrating an “incorrect” way in which someone handled a particular problem. Give the students a handout or construct an overhead of the problem. Then get them into pairs and have them find the problems with the problem and discuss how the problem should be fixed. Avoid simply incorporating errors in

calculation (adding, subtracting, etc.); instead aim for more complex errors that are representative of the topic being covered.

- Compels critical problem-solving skills
- Encourages analytical reasoning
- Provides context for diversity of process

12. Discussion Questions

Before class, ask students to prepare a question about the readings or topics of the week and write them on index cards. Give them some examples of good questions in class.

A. During class, compile the index cards and give one to each student. Get students into pairs and ask one person to start by being the interviewer. The interviewer asks the other person the question and takes notes on the answers given by the other student. Then they switch roles and repeat the process. Any questions that could not be answered are reported to the larger class and students are asked to write for 1-2 minutes one the answers to the "tough" questions. Especially good questions can be collected and used for discussion, lecture, or exams.

B. Compile the index cards and pull two or three at the beginning of class. Call on students randomly to answer the questions on the card. If they don't know the answer, ask them to facilitate a short discussion with the class to get the answer.

- Teaches note-taking and synthesizing skills
- Encourages critical reading
- Creates a context for peer teaching

13. The "Provided Data" Minipaper

Provide students with data (lists of facts, places, dates, etc.) from your course/discipline. Ask students to get into pairs and discover a general statement or conclusion that gives meaning to the material. Each pair then collaboratively writes a one-page assertion and elaboration of that conclusion. Model the process in class first or on a handout.

- Creates a context for evaluative thinking
- Allows understanding of argumentation and evidence
- Facilitates inductive reasoning skills

Sample "Provided Data" Minipaper

Using the data supplied below, write a minipaper on the topic, "Is there an energy problem?"

1. 90 percent of the world's oil (2,100 billion barrels) is still in the ground.
2. The proportion of oil left in the U.S. is much less than 90 percent.
3. Experts estimate that the U.S. will ultimately produce a total of 204 billion barrels of oil.
4. The U.S. has produced and burned over 110 billion barrels of oil so far.
5. 75 percent of America's potentially available oil has already been discovered.
6. Half of the oil produced in the past 110 years was pumped and burned in the last 10 years.
7. The Alaskan oil discovery added 35 billion barrels of oil to America's proven reserves.
8. The U.S. presently uses 30 billion barrels of oil per decade.
9. We have used 1.7 percent of the world's coal supply.
10. Coal contains a lot of sulfur, which vaporizes when burned and gives off noxious gases.
11. Coal burning leaves much ash, which poses a significant disposal problem.
12. Coal smoke is a serious air pollutant; coal mining damages the environment.
13. Miners are killed in accidents each year; many miners suffer from black lung.

14. Summary Statements

A. Have students write a statement that summarizes the main point of the readings for the day and a second statement that summarizes their response to the main point in the reading. Then, pair them up and have them share their statements. Each partner should act as a consultant by questioning, editing, and revising the reading summary statement as well as the response statement.

B. Ask students to write a conclusive statement pertinent to a project they are completing for the course. Students in a design course may write a bottom line statement about the progress of their design. Students in a business management course may write on the importance of the business strategy their group is studying. Have students get into their project groups and present their statements for feedback and review—with the intention of arriving at a clear, succinct statement about one part of their project.

- Extends synthetic thinking skills
- Encourages peer feedback and collaboration
- Facilitates clarity in thinking

15. Visual Representations

Provide students with a problem relevant to course topics that can be represented in a visual form (the problem could be presented as a list of propositions, facts, statistics, target specifications, equations, processes, or components). Ask students to get into groups and create a visual representation of the problem. Visual representations could be in the form of a model, flow chart, diagram, table, or mental picture. Students should create a visual that represents the problem in ways that lead to discussions of solutions.

A. Have groups exchange visual documents and generate ideas for solutions based on the visual representation of the problem. Ask students to attempt to identify the problem and generate possibilities for solving the problem based on the visual.

B. Have each group explain their visual to the class and ask for feedback as to whether the way in which they represented the problem visually is the best representation. Then have the groups take class feedback and revise the visual based on the discussion.

- Provides context for creative problem solving
- Increases abstract thinking skills
- Encourages critical thinking

16. Class Minutes

Assign different students to keep minutes for every class meeting. Outside of class, assign one student to write up minutes for a class meeting and submit them to his or her group for discussion and revision. Then, have the group make copies and distribute the minutes to every member of the class. Great for lecture classes.

- Compels careful listening
- Increases ownership of course material
- Encourages organizational skills

17. Minute or End-of-Class Papers.

For the final 10 minutes of class, assign students to write an explanation of the most significant thing that they learned in class that day AND to end with their most important question related to that topic. OR have them describe the most difficult point of that day's class lecture or discussion or reading and suggest reasons why that point is difficult. Insist that they write these minute papers in complete sentences. Excellent for lecture or discussion classes.

- Encourages synthesis

- Facilitates clarity in thinking

18. Class Listserv

Set up an electronic discussion list or listserv for the class. Require student to join the listserv and then to use their email accounts to discuss course material online. Assign a student or small group of students to submit short discussions or minute papers for each class period or for each week. Ask the rest of the class to respond to those discussions or papers. You might also have students submit course paper proposals to the list and have the rest of the class provide feedback on the list. Good for any kind of course.

- Encourages synthesis
- Facilitates clarity in thinking

19. Freewriting

A free association technique, freewriting can help students determine where they stand in relation to subject matter. Consider having students freewrite in class fairly regularly in order for them to become comfortable with this activity. To freewrite, you set a time limit (say, 10 minutes); then, you write manually without ever lifting your pen or pencil, without stopping to think about what you are writing, without stopping to shake out the cramp in your hand. If you can't think of something to say, then you simply write something like "nothing nothing nothing" and so on until you do think of something. To focus student freewrites, have them write a sentence at the top of the page and then begin freewriting with that sentence in mind. You should not worry that you get off topic. It's inevitable sometimes. Once the freewrite is done, students should read through it and then begin another freewrite. Students should continue doing freewrites until they feel that they have come up with several good ideas. Good for introductory courses where students need to find ways to relate to new knowledge.

- Asks students to focus actively on materials
- Encourages creative expression of ideas
- Facilitates development of ideas

20. Microtheme

The microtheme is an increasingly popular writing assignment that bridges informal and formal writing. Assign a paper topic but require students to write the paper on a 5" x 8" notecard or on a single sheet of paper. They are to ignore introductions and conclusions. Just put down the main points. Make sure they understand that they are to write in complete sentences. Especially good in courses where students are asked to find positions on issues, to argue and support positions issues. But microthemes can involve all kinds of writing. For example, the data-provided microtheme asks students to develop generalizations/conclusions based on data provided by the instructor (e.g., a graph or statistical data). The microtheme also makes for excellent preparation for writing longer pieces of discourse on the same topic, where they will need to provide background information, expand their support for their claims, and write introductions and conclusions, taking audience into consideration.

- Encourages synthesis
- Facilitates clarity in thinking
- Encourages fully developed ideas

21. Linking Vocabulary

Give students five vocabulary words and ask students to write a paragraph that link the vocabulary words in a coherent and sensible manner. Could then have them discuss in pairs before passing in. Could also give students a list of vocabulary words and have them pull out three that are related and then write about and/or discuss. This process can be used for both formative and summative assessment.

- Encourages synthesis
- Facilitates clarity in thinking
- Encourages fully developed ideas