

Writing In Content Areas – A Toolkit of Classroom Strategies

Introduction

Why assign content-area writing? The main reason is that writing is generative; it leads students to brand new thinking and new ideas in your content area.

Writing gives your students opportunities to:

- communicate information
- ask questions
- clarify and deepen thinking
- construct meaning
- learn new concepts and information
- demonstrate understanding of content

It's not enough for students to learn about writing just in general. They need to learn how to write history, write science, write about math, social studies and every other subject in the curriculum. They need to learn how to use writing to help them effectively absorb the content in your classroom. (*Content-Area Writing, Every Teacher's Guide* by Daniels, Zemelman and Steineke, p. 3)

Content-area teachers often worry about grading all of the grammar errors in an assigned

writing. Leave the fine-tuning of the mechanics to the English teachers. Try working on just one grammar issue, such as complete sentences, along with the content you are looking for.

With any writing assignment that you give your students, one of the best ways to assure that your students will produce results is to model what it is that you're asking them to do. If you are a science teacher, and you want your students to write a lab report, write one in front of them. You are most likely the best writer in the room, no matter what you think of yourself as a writer.

For all of the following strategies it is important to remember:

The key to effectively using writing activities in every subject lies in matching the right activity to the learning situation. As you select writing strategies, ask yourself, "How well suited is this task for the objective the students are learning?" "Does this strategy fit my students' abilities and needs?" "Will this strategy fit with my assessments?"

Strategy 1: Writing Break

Studies have shown that students recall information at a higher rate when they write about the information presented, and then talk about it. So this is a simple strategy that can be used when you're asking students to read, pay attention to a presentation, or when they're involved in activities. This can be used at intervals of 20 minutes to half hour by simply asking student to stop and take a paper and pencil out and write about what they've just seen, heard or read. The idea is for them to process what they've just experienced and then you can ask them to share with a partner or the whole class. Our level of comprehension is always deepened when we write about a topic or have a conversation about it. It's often a good idea to ask specific questions to illicit a more thoughtful response.

Here are some suggested questions:

- What do you think is the most important thing you read or heard, and why?
- Did you have any "Aha" moments as you read?
- What in the reading or activity surprises you?
- What do you agree with?
- What do you disagree with?
- Does this remind you of something else?
- What thoughts came to your mind as you heard or read the information?
- Does it make sense to you?
- What questions do you have, what don't you understand?

Prompts can also be more specific to the content for example, What about the Gettysburg Address surprised you the most? How would you feel if you were the plastic bottle – recycled or thrown out? One teacher describes it this way, "Writing breaks are a reminder to me to just shut up every once in a while and just think." (Daniels et. al p. 31)

This is a good way to break up a long lab, chapter, or lecture into bite size chunks in order

to increase students' understanding and ability to remember. The pair sharing also allows them to clarify their understanding, get deeper understanding from their peers, and it has the social aspect that is so motivating for students. It helps to walk around the room as students are writing, either giving them encouragement or other prompts if they're stuck, to send the message that this is an important activity.

Try it: Read an excerpt from *Content-Area Writing, Every Teacher's Guide* by Daniels, Zemelman and Steineke to help you consider the reasons for assigning content-area writing, and to experience the Writing Break strategy as you learn more about content-area writing.

Handout: Daniels, Zemelman and Steineke, Chapter 1, page 1-10

Example: Daniels, Zemelman and Steineke p. 31-34

Strategy 2: Learning Logs

This strategy is similar to the Writing Break, but students control when they write. Using a journal, students write notes or reflections *during* the lesson or at the end of class. You could use it as a formative assessment at the end of class, asking students to summarize what they have learned, (a check for understanding), or as a jumping off point for the next day. They can use their Learning Log to identify what they already know about a subject or as an opportunity to ask questions about the topic and let the teacher know what they do and don't understand.

Students can also use them to reflect on their learning over time, and to track their progress. They can keep track of good ideas, strategies, even diagrams and formulas that could be helpful later.

Handout: Student examples of learning logs, *User-Friendly Writing-to-Learn Handbook for Science* Michigan Reading Association p. 7.

Strategy 3: Dialog journals

Dialog journals can be used for on-going conversations between teacher and student, as well as student to student. (peer-reflection)
When used between teacher and student, it is an opportunity for teachers to determine how the students are progressing and a chance for students to let the teacher know where they might be having trouble. Not only does this back and forth communication help with learning, but it helps build relationships.

Benefits of Teacher-Student Dialogue Journals

1. You get to know students.
2. Students get to know you.
3. People who know each other generally like each other.
4. You get a chance to be playful and human, and to be reminded of how funny and delightful young people are.
5. Mutual acquaintance creates investment in the working relationship.
6. You hear from shy kids who never speak up.
7. You get diagnostic feedback about the subject matter: what's hard, what needs review or re-teaching, what's easy.
8. You get cues for individualizing instruction.
9. You find out about learning styles and how to reach different ones.
10. You get help matching kids in pairs or forming small groups.
11. You hear kids' often astute self-assessments.
12. You can factor personal issues into assignments, schedules, grading.
13. You provide kids with models of competent adult writing.

–from Daniels, Zemelman and Steineke, 2007, p. 109

Handouts: Student examples on p. 107.

Try a response: Choose one of the examples on the handout, respond to it as if you were this student's teacher. Discuss in small groups with others who have responded to the same example.

Strategy 4: Summarizing/GRASP

The skill of summarizing or getting the gist of things is a skill that should be practiced. Students need to be accomplished at summarizing, to make sense of the content they are studying.

Guided Reading and Summary Procedure (GRASP) gives students an opportunity to try creating a summary as a group, before they create summaries on their own. This provides scaffolding for students who haven't yet mastered this skill.

Step 1: Students read a short piece of text, with instructions to remember as much as possible.

Step 2: Brainstorming: the teacher records all of the facts that the students remember on the board.

Step 3: As factual discrepancies occur, students reread for clarification.

Step 4: The teacher guides a process for putting the information into categories with main headings and details.

Step 5: Students summarize the important information in a few short sentences.

Once students have experienced this guided practice, short selections from textbook newspaper or magazine articles are good for practice. Ask them to write the summary sentences first in small groups, then have them try it individually. The summary, in as much as possible, should be written in one's own words, not the language of the text. The summary should include the author's main idea or purpose for writing.

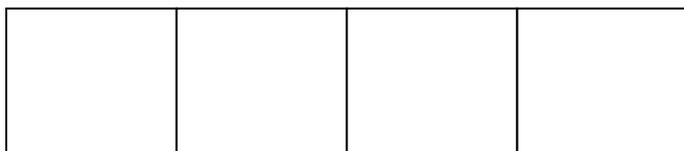
Try it with a small group: Read the handout in your packet from *The Oxford Children's Book of Science: Plants Need Mates*, p. 42, and then write the summary sentences together. Discuss the process you used in creating the summary. Any extra suggestions you would give to students?

Example: Student Example of Summarizing,

User-Friendly-Writing-to-Learn Handbook for Mathematics, Michigan Reading Association, p. 17.

Strategy 5: Creating a story board

After students participate in an activity (reading a text, conducting research, inquiry, watching a performance) they are given a finite number of boxes and asked to retell the important elements of the activity (like a comic strip).



Each box should include a thought or speech bubble as well as a graphic or drawing. Asking students to use a limited amount of boxes forces them to choose only the most important elements of the experience. This strategy engages students in sequencing, using cause and effect reasoning, synthesizing, summarizing, and identifying main ideas.

Story boards can also be used as a pre-writing activity, to help the students organize their thoughts, arguments, or plot, depending on the type of writing. This is very good for helping students pay attention to structure in their writing, and the comic strip aspect appeals to students who like to draw.

Storyboards can also become the basis for a science fair presentation board, research paper and abstract, making the process of scientific research manageable for students. This strategy is also good for describing a plan for an investigation or a design for building something, showing the steps in the process.

Example: Storyboard on pH Data from *Teaching the New Writing*, Herrington, Hodgson, and Moran p. 153.

Try it: Read the biographical sketch of Susan B. Anthony and create a storyboard, using four boxes.

Strategy 6: Compare and contrast

Like storyboarding, this strategy can be used either as pre-writing, or throughout a lesson, or at the end of a lesson, as a way for students to develop big ideas and concepts. Students collect information about two or more concepts (like equality and diversity), two or more systems (like human body systems) or two or more examples (like rectangles and parallelograms), then record key elements in a Venn diagram to clarify similarities and differences. This is an effective pre-writing/brainstorming activity for developing a compare and contrast paper. It is also a good way to keep track of new ideas during a lesson.

The Venn diagram structure is a good aide for remembering characteristics of concepts, systems and examples. It helps students organize and classify information and look for commonalities.

Other types of charts are useful for comparing and contrasting, depending on the content. The “Compare/Contrast Retrieval Chart” (see handout) is useful for drawing conclusions about the content being compared. To introduce students to this type of chart, use a chart like the wind power/coal handout, but leave the “Similarities – Differences – Generalizations” sections blank so students can practice. For any particular assignment, you might provide a blank Venn diagram, a blank matrix, and a blank Retrieval Chart, and let students choose which one they prefer to use – an easy way to differentiate.

Compare and contrast structures are also good for developing persuasive arguments that are based on reasons and evidence, by clarifying counterpoint arguments. Sentence starters that can be used for this purpose include “On the other hand...” or “Opponents would say...” or “Some critics have argued that...”

Handout: MDE *Science Writing Across the Curriculum* document, p. 12 and 13.

Strategy 7: Steps of the writing process

This is a “real-world” process and it works well for writing in any content area. Not all of the steps should be followed for every piece of writing, but the entire process is especially useful for polished pieces of writing, research papers for example. For many assignments, just two or three steps will be used. For the writing process to work well, the classroom climate is important.

Students learn about the “writing process” in English classes, as a sequence of steps:

- Brainstorm,
- Pre-write
- Write rough draft
- Peer-review
- Revise ideas
- Edit
- Publish

Here are some important ways to set a positive climate for writing:

- Establish constructive purposes for student writing
- Find real audiences, beyond the teacher, for students’ writing
- Demonstrate the process that mature writers go through
- Teach students how to help one another; organize classroom activities to foster collaboration
- Show students that it is safe to ask for help
- Write with your students

Adapted from *Content-Area Writing, Every Teacher’s Guide* Daniels, Zemelman and Steineke p. 126.

Try it: Take a look at the components of the writing process and a positive writing climate and choose one aspect that you would like to focus on. Then talk about what you would do next, and prioritize aspects of the writing process and climate building.

In groups, brainstorm what kinds of writing opportunities students have for using the writing process in your classroom.

Strategy 8: Golden sentence

You can use this strategy in the reviewing and revising phase to improve any type of writing. When students have completed a draft, and are ready to revise and polish it, have them look for a “golden sentence,” the sentence that seems the most powerful to them. If they can’t find one, they could find a sentence they can buff up and revise into a golden sentence, or they could even write a new sentence if they don’t think any are quite “golden” yet. Then have them write their sentence in the center of a blank sheet of paper. They pass their golden sentence to three other people near them, one at a time. Each person reads the other’s golden sentence carefully, then writes a micro-response of a few words, passing it on to the next person when they have finished their response. After three responses, return the golden sentence to its writer.

This activity can be a great confidence builder, because students get positive feedback from their peers (ideally, since it’s their best work). Even the most reluctant writers can write a single sentence, so they gain confidence by starting small with something that’s manageable. Focusing on a single sentence – what the writer is trying to get across, and what words they chose – dramatically helps improve their writing.

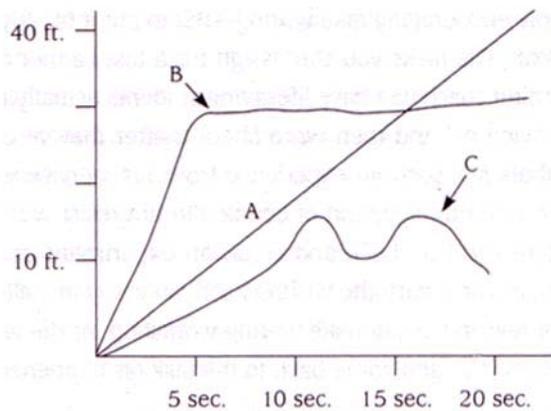
Source: Jim Vopat, *Micro Lessons in Writing*.

Try it: Instructions are on the handouts: Journal Directions and Finding Your Golden Sentence

Strategy 9: Putting words to pictures

Students can often gain insight into a graph or diagram by making up a story to describe what it shows. This allows the creative side of their brain to engage with the analytical side. For example, one teacher asked students to think about this graph as recording a swim race, and to pretend they were a sports announcer calling

the race. How would you call the race, from start to finish, minute by minute?



Here’s how one student wrote about this graph: “And they’re off. A is swimming a good steady stroke. B is dashing ahead, almost halfway down the pool. C is a little behind. Wait a minute! B appears to have stopped dead in the water! Something must be wrong – maybe he’s got a cramp. It looks like they’re throwing him a life preserver. A is still working steadily down the pool. And what’s happening with C? He just stopped and started heading backwards. I think he just lost his swim trunks and is going back to get them...” (Daniels... p. 256)

Of course, as a mathematics problem, you would want to look for evidence in the students’ writing that they understand both the distance and speed components of the graph.

Strategy 10: Cubing

As we mentioned in the introduction, writing is often a way of generating new thinking or as a vehicle to explore thinking. If you have a particular topic that you would like students to explore, you can ask them to “cube” it. This will enable students to explore a topic from 6 different angles:

Describe It

How would you describe this topic/issue/event/person?
 What characteristics does it have?
 What does it look like?

Compare It

What is it similar to?
 What is it analogous to?

Associate It

What does it remind you of?
 How does it connect to other topics/issues/events/people?

Analyze It

How did it happen?
 Why did it happen?
 What are the contributing pieces/factors?

Apply It

What can you do with it?
 How can you use it?
 What lesson(s) did it teach?
 What understanding did it generate?

Argue For or Against It

I support this because...
 I oppose this because...
 This is a good because...
 This is bad because...

Handout: Student Example on The Holocaust

Try It: Think about the Content Area you teach and either describe it, compare it, associate it, analyze it, apply it, argue for or against it. (In writing, of course!)

Adapted from *Teaching Adolescent Writers* by Kelly Gallagher

Conclusion

There are many opportunities to integrate your content with English Language Arts. Talk to your favorite English teacher about working together on a project. We’ve attached an example of a great project, *Fieldnotes on a Hummingbird*, that integrates writing, science, art and technology. These kinds of projects take students way beyond the bounds of ordinary lessons.

Works Cited

Daniels, Harvey and Zemelman, Steve, *Subjects Matter: Every Teacher's Guide to Content-Area Reading*. 2004. Heinemann: Portsmouth, NH.

Gallagher, Kelly, *Teaching Adolescent Writers*. 2006. Stenhouse Publishers: Portland, Maine

Michigan Reading Association, *User-Friendly Writing-to-Learn Handbook For Science and Mathematics*.

Vopat, Jim, *micro lessons in writing*, 2007. Heinemann: Portsmouth, NH

Writing Across the Curriculum: Science, Michigan Department of Education, 2009.