

- Look at the postcard in front of you., Write down a science idea that you can elaborate on when you do some research later. Begin the explanation of the topic and why it is important.

- Write to someone close to you, telling them a bit about your trip.

- Argue to what extent you agree or disagree with the use of the tram in Yosemite, and date this picture because of it. Discuss the consequences of transportation in the park today.

In small groups, share

- a) What is different about the three writings (be specific and make a list of answers). Please share out as a whole class (genre, vocabulary, formality, ...)
- b. Which writing serves which purposes? How can you include different kinds of writing in science?

Why write in the disciplines?

Researchers have found that little reading or writing goes on in most content area classes.

- Instead of requiring students to read actual scientific papers and historical documents, and instead of assigning students to write and re-write many kinds of essays, reports, and other materials, the vast majority of teachers assign only brief readings (mainly from textbooks) and short, formulaic writing assignments (Heller, 2009).

Studies done to show how...

- Writing and vocabulary should be taught to work together and to use vocabulary building to prewrite (Duin & Graves, 1987).
- Higher quality writing occurs when there is planning, but young children do not see the value or make the time (Bereiter & Scardamalia, 1987; Scheur, de la Cruz, Pozo, Huarte, & Sola, 2006).

Self (1987) sees content writing reaching the following content area purposes:

- 1) focuses students' attention
- 2) engages students actively
- 3) arouses students' curiosity
- 4) helps students discover disparate elements in the material
- 5) helps student make connections between the material and themselves
- 6) helps students "make their own meaning" from the material
- 7) helps students think aloud
- 8) helps students discover what they do & do not know (and teacher too?)
- 9) helps teachers diagnose students' successes and problems
- 10) prepares students to discuss material

What kinds of writing can we do,
which are discipline specific?

How do we teach students to
write better in our discipline?
What skills & strategies work?

Seven key principals about Teaching/Using Writing in Class (next slides)

1. Each content area has its own content specific vocabulary & rules for writing which must be taught.
2. Writing assignments should allow the students to consider the important elements of the content, not random or unimportant detail-driven activities. They should connect prior knowledge to new information.
3. Students should be encouraged to use the writing process, including planning & revising across multiple drafts. Students need varied experiences with writing, such as working with others (teacher or peers), getting & giving feedback, & time to reflect on writing.
4. Writing assignments should be varied. In addition, students should write for varied & authentic audiences and often an audience other than teacher.
5. Students should write with a definite purpose, and when possible, should be allowed to choose and write about topics in which they are interested.
6. Students need to write frequently & regularly. It will help students consider content more deeply & critically and teacher know in what areas students need to improve.
7. Students should know in advance the criteria that will be used to assess their writing.

1. Each content area has its own content specific vocabulary & rules for writing which must be taught.

- A large portion of vocabulary items should be derived from content learning materials and should be words the learner will find useful in many contexts serving the following functions:

Assisting the learner in dealing with the specific reading matter in content area materials and looking for differences in content writing, such as ways to write research

Providing the learner with vocabulary that would be encountered sufficiently often to make the learning effort worthwhile. (NRP, 2000b, pp. 4-25f) and applying these new words in speaking and writing.

Content-area teachers are uniquely able to teach their students, to write in the "language" of their disciplines.

- Bring in samples of published writing in your field as models.
- -go to the children's weekly readers and ask students to point out key terms when reading a more scientific or historical article. As them which words make them that content. Which words are common in an informational article.
- Use these as models before asking students to write one in that content area.

- Vocabulary will provide for clear communication of one's ideas and thoughts. Writers must know the type and level of their audience and adjust the vocabulary accordingly. It is worthwhile to constantly work at improving one's knowledge of words.
- The breadth and depth of a student's vocabulary will have a direct influence upon the descriptiveness, accuracy, and quality of his or her writing.

- 2. Writing assignments should allow the students to consider the important elements of the content, not random or unimportant detail-driven activities. They should connect prior knowledge to new information.

- Language Task: Compare Example (move from graphic organizer to writing)

- Language Task
- Sentence Frame

- **Compare**

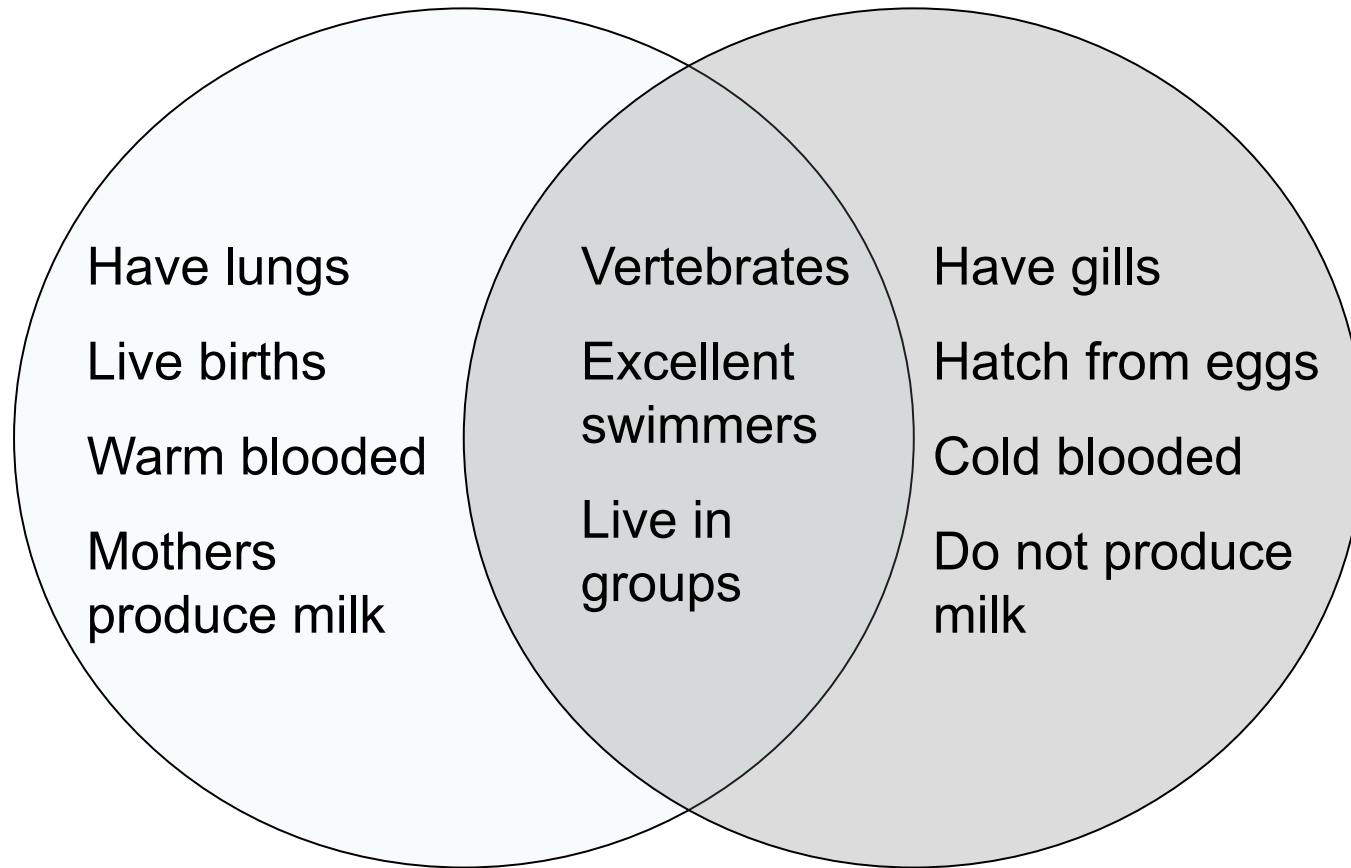
When you compare, you are looking for the ways that something is like or similar to something else.

Words that We Use to Show This
 both
 same
 similar
 also
 like
 alike
 just as
 similarly
 as well
 as
 whereas

- FRAMES for language
- ___ and ___ both have ___.
- Both ___ & ___ are/have ___.
- ___ is like ___ because ___.
- Similarly, ___ is ___.
- ___ is similar to ___ in multiple ways because ___, ___, and ___.
- Whereas, ___ is ___, ___ is _____ and _____.
- Because ___ is a ___, I can argue that ___ is like ___.
- These 2 characters are alike because ___, ___, & ___.
- Both ___ and ___ choose to ___ because _____¹⁷.

Content-Specific vocabulary

Purpose: Compare/Contrast



Marine Mammals

Ocean Fish

Linguistic Features - sentence frames

- Providing sentence frames will allow students to express compare/contrast.
- _____ have _____,
whereas _____ have _____.
- Marine mammals have lungs, whereas ocean fish have gills.

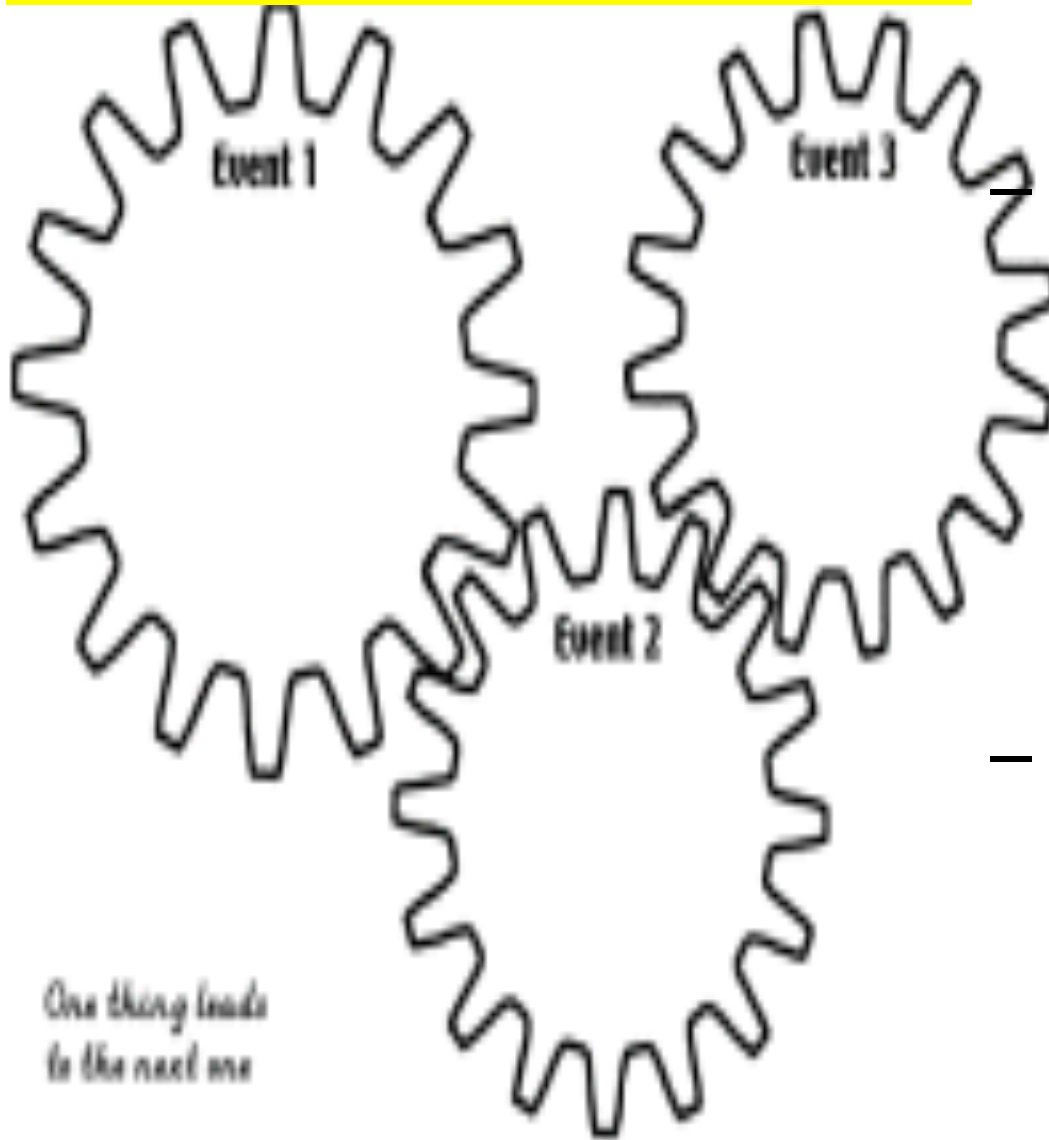
Identifying Cause/Effect

CAUSE/EFFECT FRAMES

– The character did that _____ because _____...

– Even though many people thought that the cause was _____, it seemed likely that it was _____...

– Each _____ played a key role. First, _____ did _____. Then, _____ did _____.



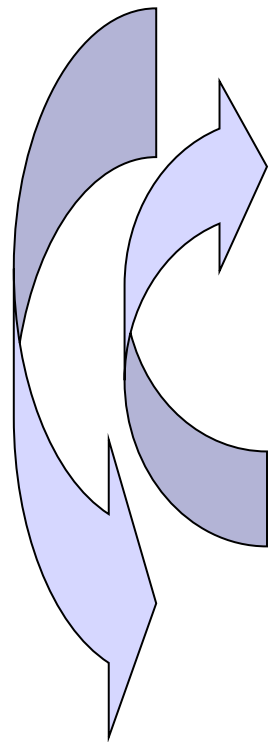
One thing leads to the next one

Some frames for academic writing

- In the _____ (essay or paper title), _____ (author) states that.....
- Although many people agree with _____'s (author) stance that _____ (idea) occurred, others consider _____ to have happened.
- Basically _____ (author) is saying that _____
- _____ (author) states that, “ _____.”
- _____'s (author) claim that _____ seems to have contributed to _____ seems unlikely because...
- I agree that _____ may have happened because, in my experience,.....
- Though it seems obvious that _____, there is evidence from _____ that proves otherwise.
- Essentially I am arguing that _____
- My point is _____

3. Students should be encouraged to use the writing process, including planning & revising across multiple drafts. Students need varied experiences with writing, such as working with others (teacher or peers), getting & giving feedback, & time to reflect on writing.

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**Prewriting (brainstorming,
freewriting, planning)**

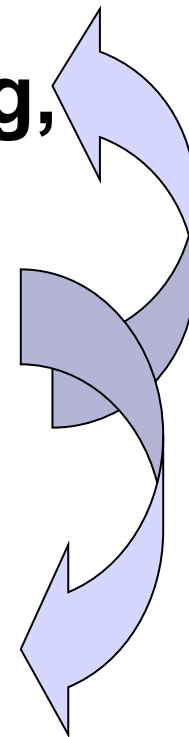
Drafting

Revising

Drafting/polishing

Editing

Publishing



- Allow students to **pre-write** (free-write, make lists, talk to others, keep a journal) before beginning the formal writing of a paper or test. A chance to deal with ideas informally can improve the clarity and organization of the final product.
- Give students **feedback** from you, classmates, parents... Comments and QUESTIONS drive writing more than telling a person what to write. This will guide them in **revision**.
- Save **editing** until near the end of the writing process. Separating getting-ideas-down-right from getting-the-forms-right (checking for spelling, punctuation, grammatical correctness) can help people write more fluidly, clearly, and effectively. It's easier to say what you want if you know you don't have to worry about correctness yet. This doesn't mean correctness is not important; it is, at the most effective time: after the ideas are down and clear.
- Provide students a chance to "**publish**." Have them present to the class, produce a handbook, post papers²⁴ in the hall, write to children, the president, the school paper...

Cubing

- Describe it
- Analyze it (how was it made?)
- Associate it (with a personal experience)
- Compare it (to something like it)
- Apply (what is it used for?)
- Argue for or against

(Cowen & Cowen, 1980)

- Revision

- ◆ Making meaningful changes in sentence arrangement, adding or deleting, expanding or explaining
- ◆ Conferencing with teacher editor, writing partner, group, etc..
About discourse
- ◆ Revision for comprehension

- Editing

- ◆ For mechanical refinement
- ◆ Conferencing for mechanics
- ◆ Non-meaningful changes
- ◆ Considering sentence structure, word choice-
implied but clarified

Conferencing

Definition: Conferencing is an activity where writers discuss and share their writing with an individual or group.

Setting students up for success in peer revision—frames to match the EPT rubric

- a. The part of the prompt you responded most effectively to was _____
(use writing prompt & students' rough draft)
- b. The part of the your writing that shows understanding of the reading is _____
- c. The part of the your writing that shows deep thought is _____
- d. The strongest reason to support your position seems to be _____ OR the strongest example or evidence seems to be _____
- e. Your sentences seem _____ (complex, simple...)
- f. You show that you have mastered the craft of writing through your use of _____.

4. Writing assignments should be varied. In addition, students should write for varied & authentic audiences and often an audience other than teacher.

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- **Vary the audience**

- Peers
- Parents
- The president
- A first grader

- **Vary your genre or writing activity**

Create a horror story	Write a letter
Describe directions or a process	Write and perform a skit, role play, or scenario.
Write a TV advertisement	A child's book
Memo/legal document	flowchart
caption	Write a pamphlet
text message	diary entry/letter
recipe	Policy statement
letter to the editor	Sports/weather broad cast
Write a song or rap	Create a multimedia presentation

5. Students should write with a definite purpose, and when possible, should be allowed to choose and write about topics in which they are interested.

Writing in the round

- Provide controversial issue (biased) to each student sitting in circle. Each person in the group/circle receives a different one. Students (and you) have 50 seconds (to increase by 10 seconds each time the papers are passed) to respond to the prompt and to others' responses about the prompt. Pass papers every time to the right until they are done.
- Should we bother protecting other species knowing that we're just another environmental factor that natural selection acts upon?
- Should we send more people to the moon?
- Should we send a mission to Mars?
- Climate change is not caused by humans.
- Are we poisoning ourselves by FRACKING?
- DNA testing is critical to understanding our personal choices; therefore, insurance companies should promote it.
- Absolute dating is realistic enough to help discover the age of earth.
- Innovations in genetics can now lead to any two organisms producing an offspring, even those considered "unnatural."
- Scientists should not genetically alter or engineer the genes in fruits and vegetables.
- Breeding for desired traits is ok for humans.
- I got more genes from 1 parent than the other as I look more like one parent than the other.
- Natural fluctuations might explain most of the current global warming phenomena.

- 5. Students should write with a definite purpose, even sometimes being allowed to choose topics in which they are interested.

There are many reasons to have your students write, but overall goals can be grouped into

- a. writing to learn which can help students understand and retain course information
- b. writing to demonstrate knowledge through which students show that they have learned necessary information
- c. writing to improve or maintain writing skills in which style and correctness are important.

Most writing assignments serve more than one of these purposes concurrently.

Gebhard (1983) suggests 4 principles for developing writing activities to assist in comprehension.

- Students need an audience other than the teacher
 - Students will buy into their tasks more
 - Teachers will have less “grading” of writing, enhancing students’ production. Correction will be second to content.
- Writing assignments should be varied.
- Writing tasks should be consequential. Students should be writing about topics they are interested in writing.
- Writing activities should connect prior knowledge to new information, providing students with a creative challenge.

How do we evaluate writing in our
classes?

6. Students need to write frequently & regularly to help students consider content more deeply & critically and to help the teacher know in what areas students need to improve.

Some ideas to have students do:

1. Write **what they know about a topic** to help focus students' opinions and to gather their thoughts. Since students will have something in front of them before class begins, it will likely contribute to student participation.
- 2. Write **responses to questions** posed during class. This, too, will enhance classroom discussion.
- 3. **Take a side of an argument** and write down their reasons for supporting that position and supporting evidence, for both sides of a given debate.
- 4. Write **a brief summary** at the end of a lesson to help students see what they remember and identify what main issues were. Collect these to see if your students grasped the main points of the discussion/lecture.
- 5. **Bring drafts of their work to share** with classmates

7. Students should know in advance the criteria that will be used to assess their writing.

Read student writing for **what you consider to be most important**. You don't have to read their papers for everything. Use your response to train your students to meet these expectations. **Make these expectations clear** to the students before they write using check sheets, rubrics, criteria ahead of time. Handouts, even example papers can help students write the paper you want and make your job as reader much easier and less frustrating.

Essay Prompts: creating and assessing

TEXT statistics, information, facts.... Related to reading or topic already encountered in class

Prompt asking the question for students to consider. Teach academic language (explain, compare or contrast, to what extent..., describe, calculate

Directions includes specific qualities teacher will assess (page numbers, word count, usage or grammar specifics...)

- Rubric (to match the directions)
- Criteria
- Check sheet
- Academic language to teach to understand the prompt

Writing rhetorically

Types of evidence:

- Statistic (evidence shown as a number or data)
- Fact (though it may not be from documented source)
- Expert (quotation, summary, from a person or place with knowledge about the topic.
- Personal story (anecdote or experience to share from writer's point of view.
- Commonly known belief (based on human nature, not fact)
- Author's opinion (not based on proof or evidence)

Rhetorical appeals:

- Ethos: expertise, good will/integrity, credibility of the author as judged by the reader
- Pathos: appeal to the reader's emotions
- Logos: appeal to the reader's sense of logic and proof.

So where does assessment belong in the process?

- “By placing assessment at the end of the writing process, allowing assessment to be strictly teacher-oriented, and automatically equating assessment with grading or some other form of final judgment--all tend to weaken the potential of assessment for helping students improve their writing” (Spandel and Stiggins, 1997, p.79)

Giving feedback

-It is generally a waste of time to mark a final draft of any paper, unless it is to simply to justify a grade. Feedback should allow writers to try put suggestions into practice.

-Don't mark every error or flaw. Most students need help setting priorities for improvement. When a paper is covered with red marks, each mark has equal weight; the writer may not know what to work on first or understand what the mark means.

-When time grading papers is limited, mark a representative sample, like sentence-level problems in 1 or 2 paragraphs, and draw a line to show they'll respond only to content after that.

-It is often best to respond as a reader, not as a critic. If you are confused reading the paper, simply say so. Initial confusion indicates that there is a rhetorical or stylistic problem which the writer must address. Ask critical questions of the writer so they can make their own changes and the paper remains theirs. ⁴²

Adapted from Erika Lindemann: Responding to student writing (1995).

- Read the writing once without marking on it.
- Identify what they did well and the problems they are having.
- Assume there's a logic to what is written (even if it isn't your logic). Formulate tentative hypotheses to explain the problem on which to focus. Use the checksheet for support and evidence.
- Examine what the student has done well. Can this evidence help the student solve a problem elsewhere in the paper?
- Now you are ready to begin commenting. You've examined the evidence, decided what you want to say to the group, and identified specific examples of what is missing or poor.
- Use questions to call attention to trouble spots.... Preface questions with why, how, or what so that students must re-examine their own paper. . . .
- Avoid doing the students' work. Let them do the thinking. Rewriting an occasional sentence can give students a model to imitate, if you make it clear what principle the model illustrates.
- Write out a careful endnote to summarize your comments and to establish a goal for next draft.

feedback

- ◆ Make a thorough response at a point where there is still opportunity to put suggestions for improvement into practice.
- ◆ Don't mark every error or flaw; set priorities for improvement. Make sure the group knows what to work on first or may not understand what your marks or comments mean.
- ◆ If you don't have time to respond to the whole paper, tell students you will mark only one item (like content) after you've marked a representative sample.
- ◆ It is often best to respond as a reader, not as a critic. If you are confused by the writing, say so. The confusion indicates that there is a rhetorical or stylistic problem which the writer must address.
- ◆ First impressions often help to identify major problems, and are usually the ones to deal with first. The problems that appear after careful analysis are probably more subtle and more difficult to remedy, and of less immediate importance. Going with your first impression also speeds up the process of responding to writing.
- ◆ Avoid making marginal comments which contradict other marks, like making detailed stylistic and grammatical corrections and then writing in the margin "You don't need this paragraph."
- ◆ Praise too. Tell the writers what they did well so they can do it again.

Recommendations:

USE FORMATIVE WRITING ASSESSMENT TO ENHANCE STUDENTS' WRITING

1. Writing improves when teachers and peers provide students with feedback about the effectiveness of their writing.

Writing improves when students are taught to evaluate the effectiveness of their own writing.

Recommendations:

USE FORMATIVE WRITING ASSESSMENT TO ENHANCE STUDENTS' WRITING

2. Writing assessment.

Writing improves when students are assessed in the format with which they are most experienced—pencil & paper, or word processing.

a) Writing assessment improves when teachers judge the quality of student writing and do not allow factors such as handwriting or computer printing to bias their judgment.

b.) Writing assessment improves when teachers do not allow their knowledge of who wrote a paper to influence their judgment.

c). Writing assessment improves when teachers score papers randomly rather than allow a previous paper's score to influence their judgment.

d.) Writing assessment improves when teachers assess students' writing in a variety of genres. This finding supports the decision by the authors of the CCSSI to emphasize students' mastery of many different types of writing, since writing is not a single generic skill.

e.) Writing assessment improves when teachers use procedures for ensuring that particular aspects of writing, such as quality and its basic attributes, are measured reliably.