

# teaching with writing



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## **1. Contexts**

- Session overview
- Identify apt topics for addressing with in-class instruction

## **2. Two five-minute strategies**

- The five-minute paper
- The five-minute revision workshop

**teaching with writing**



# Establishing context



**Step 1:** Focusing on one course, name an upcoming writing assignment (i.e., persuasive essay, lab report, literature review, reading response, grant application...).

**Step 2:** With as much specificity as possible, list aspects of **strong** responses to this assignment. What do you hope you'll see?

**Step 3:** In as much detail as possible describe some of the **weaknesses** (large scale and small scale) you anticipate finding in the writing students will be turning in.

# When you sit down to student work, what are you hoping to see?

Writing that...

carefully details works of art such that readers can then see and appreciate key observations related to the work.

**Art History**

describes significant gaps in scientific knowledge by articulating a target question or problem and describing its significance.

**Microbiology**

engages ambiguity and uncertainty such that multiple, even contrasting, possible interpretations interact rather than compete to provide explanations

**Anthropology**

uses professional tone, while at the same time compellingly revealing writer's voice.

**Apparel design**

Describes the significance and implications of an experiment's results using quantitative (rather than qualitative) terms to convey the significance of the results.

**Chemistry**

Has been proofread and is free of errors that prevent readers' comprehension

**Youth Studies**



quality, focus, and/or  
development of ideas  
or information

grammar, usage,  
writing style,  
proofreading

something else

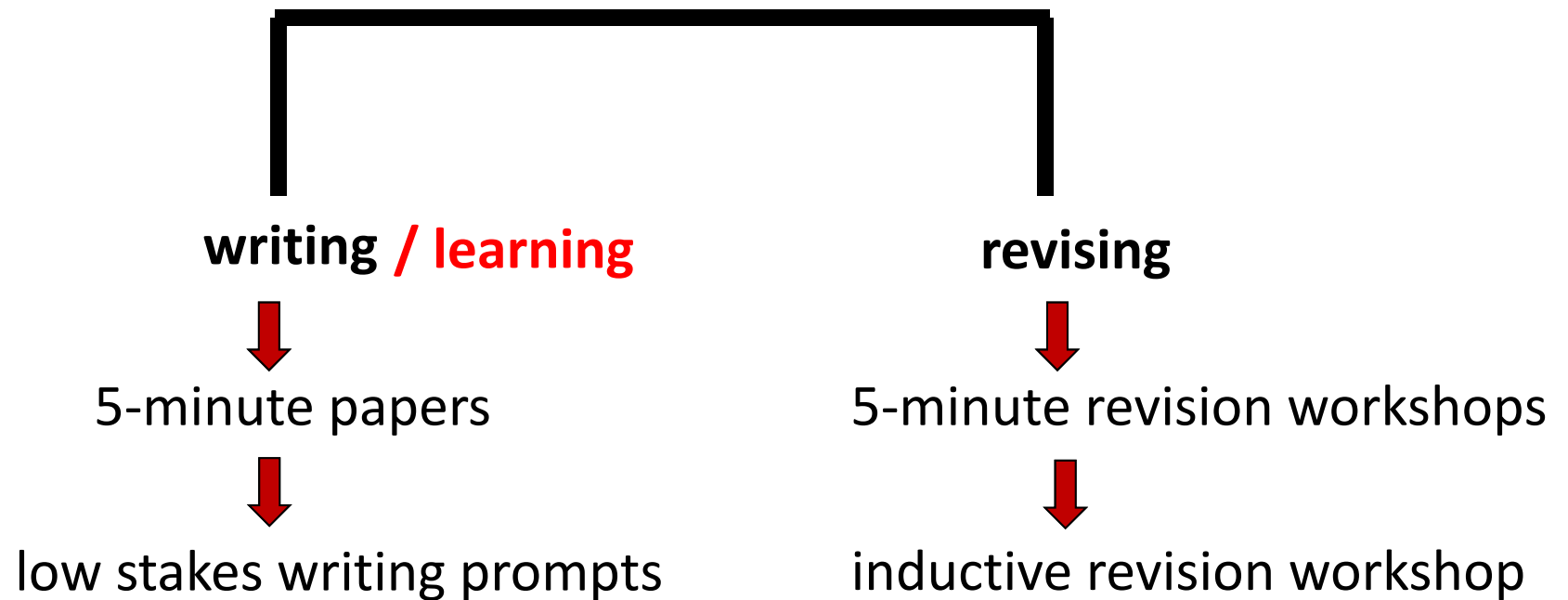
**what**

**how**



shutterstock · 116222674

## writing instruction in 5-minute increments

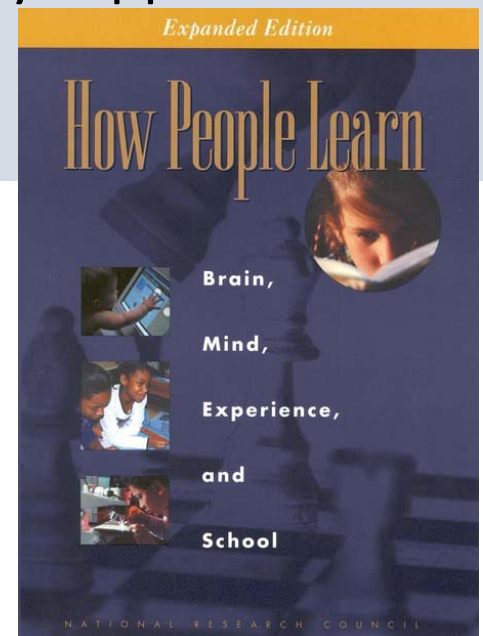


# Does writing positively impact learning?

Writing allows the “deliberate structuring of the web of meaning.”  
(Vygotsky 1926)

“Writing, like other activities involving the manipulation of information, increases long and short term memory” (Hayes 1980).

“Writing does complicate, and thus enrich, the thinking process, but will result in learning only when writing is situationally supported and valued” (Ackerman 1992).





quality, focus, and/or  
development of ideas  
or information

## METHOD: Five-minute papers



### HOW:

**Step 1:** Introduce and rationalize the activity

**Step 2:** Present a writing prompt and instructions

**Step 3:** Time it (and, where possible, participate)

**Step 4:** Discuss responses. Optionally, collect.

**WHEN:** At start, middle, end of a class session

**GRADING:** Possible, but not recommended



# In-class: five-minute papers



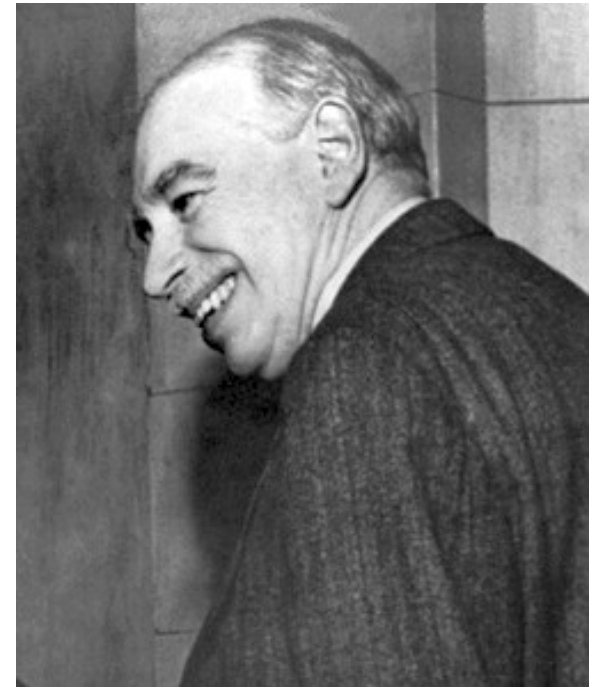
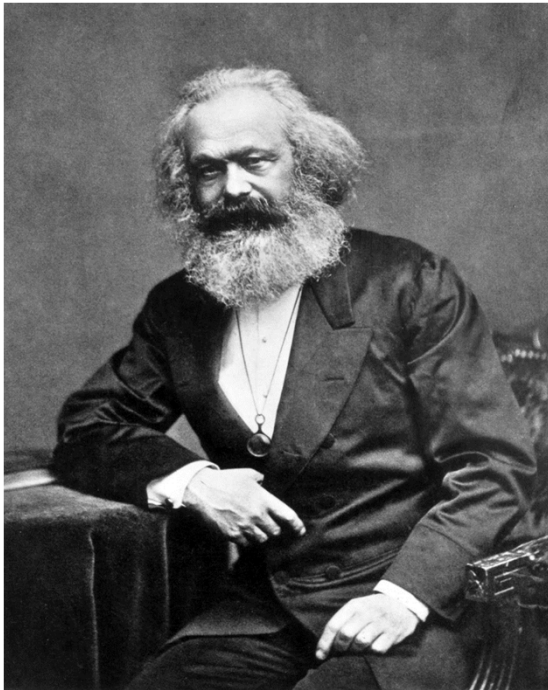
Create a bumper sticker that summarizes yesterday's lecture.



**Distill, Synthesize**



## ECONOMICS



With what economics statement would Marx, Smith, and Keynes agree?

**Distill, Synthesize**



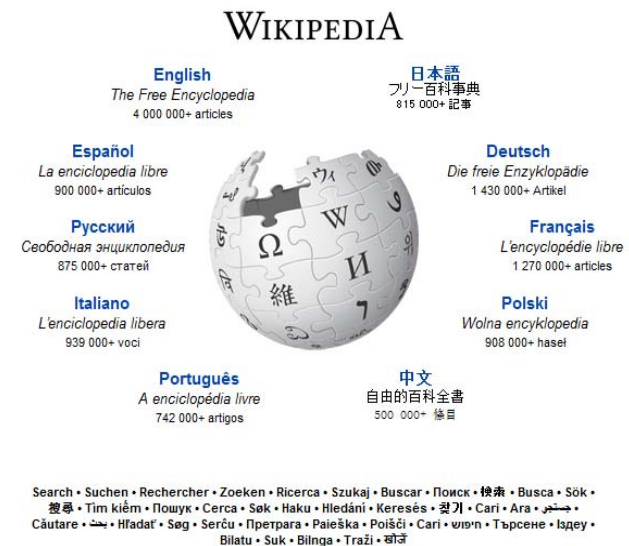
## POLITICAL SCIENCE

Choose a position:

In your research papers,  
you **should** or **should not**  
be able to use (and cite)  
Wikipedia as a source.

List three reasons  
evidencing your position:

I will not collect these, but  
will ask people at random  
to describe their reasoning.



**Take and evidence  
a position**



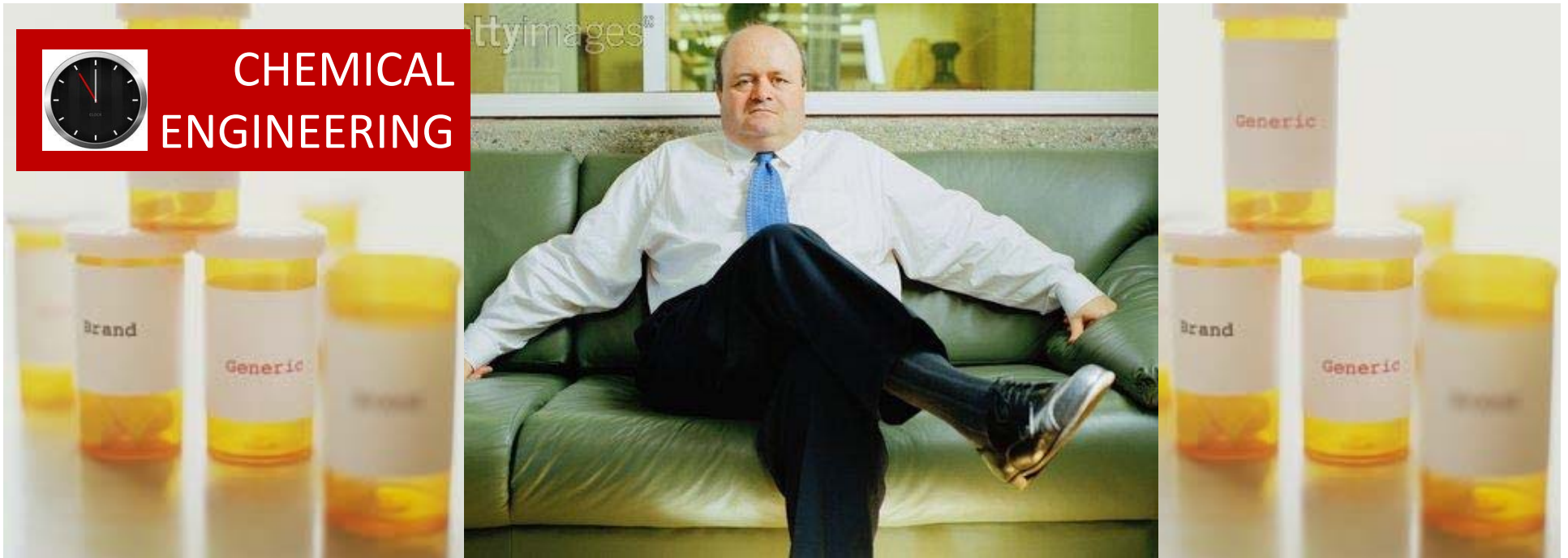
## VIROLOGY

What words, phrases, and images do you associate with the word virus?

**Unpack and contextualize concepts**  
**Address multiple audiences**



## CHEMICAL ENGINEERING



You are the CEO of Eli Lilly. A team from your Research and Development department forwards a proposal for developing a medication that will prevent hair loss. With what questions do you approach their proposal?

**perspective shift; identify counter-arguments,  
address audiences**



**Medical Ethics:** People suffering from schizophrenia should/should not be forced to take their medication.

*Take five minutes to jot down notes in defense of your position, imagining an audience of fellow medical students.*

**Take and evidence  
a position**

*We will discuss but not collect.*



## SOCIOLOGY



Pose critical, viable research questions

**Generate a list of research questions prompted by this on-campus demonstration: 3 minutes. In triads, compare lists & select/revise one question that could be workable for a 6-8 page research paper.**



## ANTHRO- POLOGY



### Course: **Anthropology (1K):**

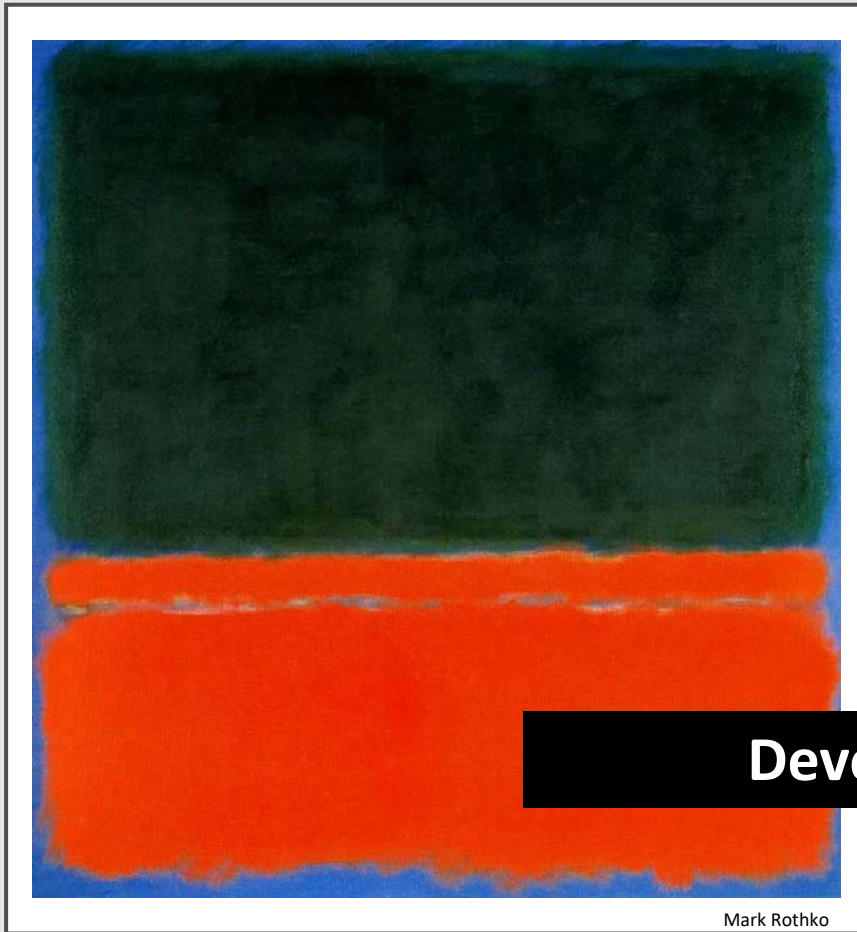
As you view the slide, note what you observe in the order that you observe it. You will then spend 5 minutes comparing notes with a peer and draw conclusions about preconceptions and their sources. Your cultural autobiography will require you to reflect on preconceptions in this way.

**Use visual information; Track observations**





## ART HISTORY



**Develop compare/contrast thesis**

On what basis might you compare these two? On what basis might you contrast them?



## LITERATURE



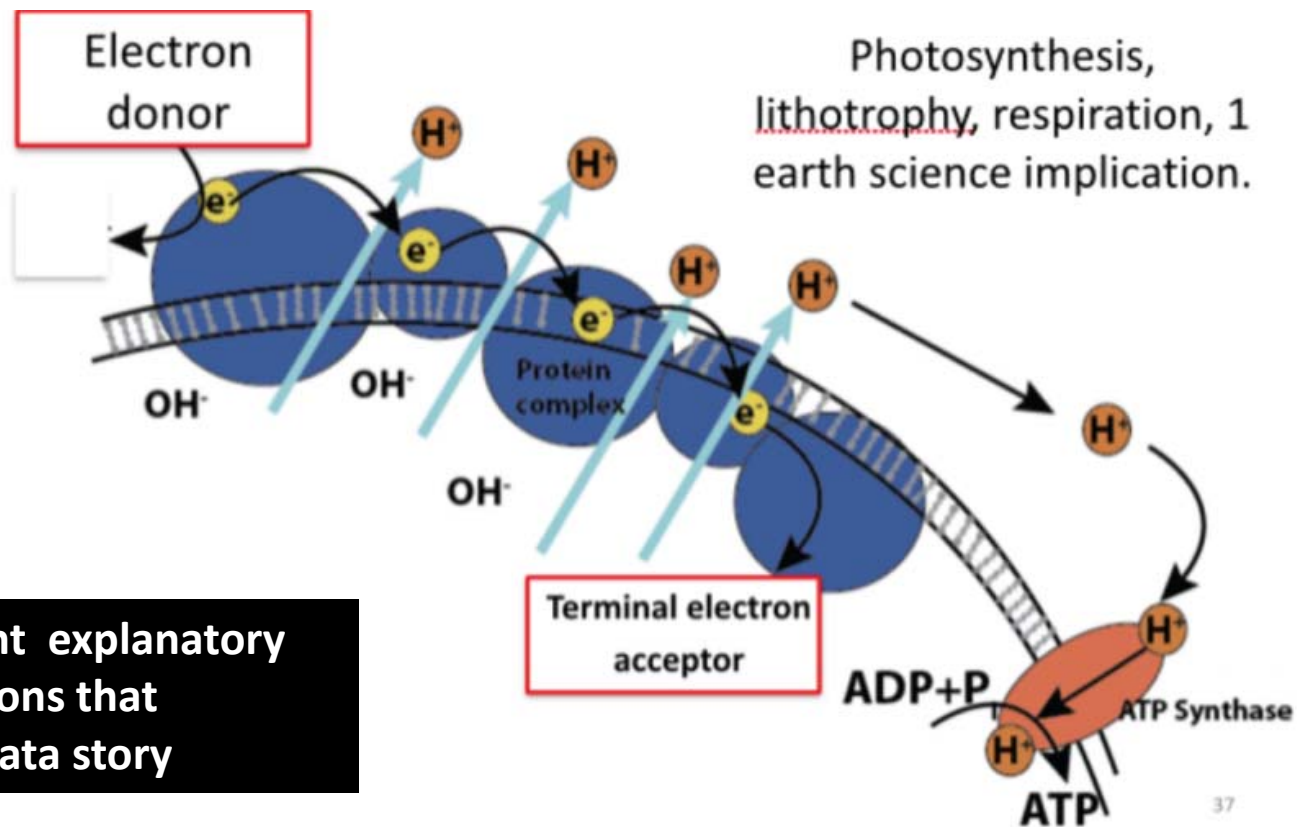
**Formulate Question; Develop draft**

Spend five minutes formulating an unresolved question that you would like to ask Kate Chopin about the characters, plot, or way she wrote *The Awakening*.



## EARTH SCIENCE

Earth Sciences: List points to be made in a caption for the below figure (2 minutes). Collaborate with a partner to write a caption appropriate for a college level textbook (3 minutes).



Write cogent explanatory figure captions that synopsise data story



MUSIC



## Creating musical terminology

1. Listen to **1 minute** of the song “[Take on me](#)” by Norwegian pop group A-ha.
2. While you listen, identify a *particular quality of this song* (this can be any quality/combinations of traits – no choice is wrong)
3. Quickly find a name for a *new term* no one has heard before.
4. Write down a *short definition* of this new term (between 10 and 50 words), describing the particular quality you identified.



## BIOLOGY

# 5-minute hypothesis



An 88-year-old man had eaten 25 eggs per day for many years, yet his serum cholesterol was only in the range of 150-200 mg/dL.

[New England Journal of Medicine 324:896-900.]

**2-minutes:** What do you know? What don't you know? What are your guesses

**3-minutes:** Work with person sitting next to you to formulate an initial hypothesis or research question



## PHYSICS



Write 2 tweets to this underwater archer. In the first, tell him what he needs to know in order to hit the target. In the second, explain why this is the case.

# In-class: 10-minute activity



1. Co
2. OI



3 minutes)

**3. Twos: Turn back around and read** your partner's description. Using colored pencils, **draw the image** described. (3 minutes.)

**4. Discuss:** Compare against the original and analyze the differences. Implication for next lab? (3 minutes)

**Write concrete descriptions**

[https://store.schoolspecialty.com/OA\\_HTML/ibeCCTpltmDspRte.jsp?minisite=10029&item=33132](https://store.schoolspecialty.com/OA_HTML/ibeCCTpltmDspRte.jsp?minisite=10029&item=33132)

<https://17green.wordpress.com/2014/01/18/marcelduchampwhatisart/>

# Prompt design

- Elicit immediate, brief writing (a word, a sentence, question, or a paragraph or two)
- Are integrated directly (explicitly) into class content/activity: address key objective and are scaffolded in to larger assignments
- Elicit multiple valid responses

## Course: **Dental Hygiene**

On your 4 X 6 card, list the concerns (in order of priority) a dental patient might have as s/he walks through the door.

## Course: **Virology**

Define Virus

## Course: **Advanced Algebra**

Spend 5 minutes creating a little word problem, maybe appropriate for a 6<sup>th</sup> grader, in which you introduce the basic ideas of trigonometry. You will turn this in at the end of the class.





quality, focus, and/or  
development of ideas  
or information

Select a **category 1** writing concern from your list.

Discuss, with your team, a possible 5-minute paper prompt that would likely target the issue.

# Pointers for conducting

- Describe activity, audience, rationale and announce time limits
- Whenever possible, do the activity yourself
- When time is almost over, give 1-minute or 30-second warning
- If you collect, summarize your findings during a following class
- Find a place in the course's final grade for informal writing assignments
- Ask students to reflect on insights, developments





grammar,  
usage, writing  
style,  
proofreading

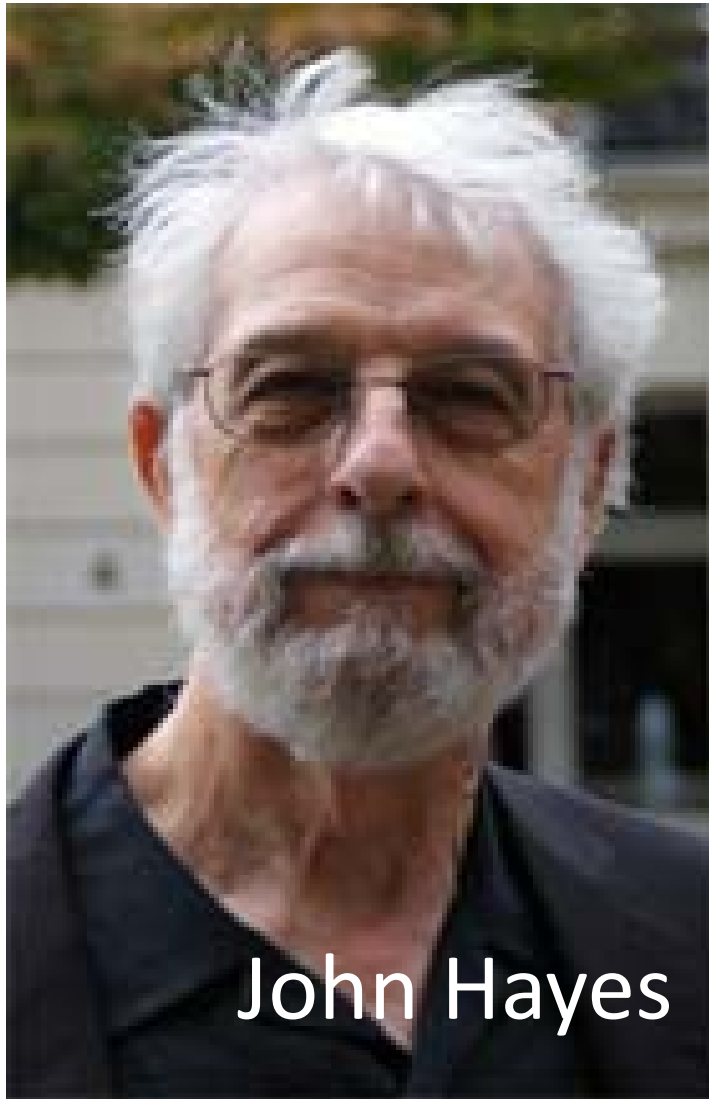
## **METHOD: Five-minute revision workshop**

**WHAT:** A brief, interactive, context-specific discussion of a usage, mechanics, or writing style problem that is frequently cropping up on a current writing project.

**WHEN:** At start or end of class period

**GRADED:** No

# What do we do when we revise text?



Detect

Diagnose

Remedy



Growing up parents teach their kids "two wrongs do not equal a right." This lesson is taught to inform children that doing a wrong deed back to someone, as payback is not right. Native Americans today face criticism for the fact that they are allowed to have casinos on their reservations. Critics of the casinos believe that the U.S. government is the one trying to make "two wrongs into a right." First the government takes the land from the Native American people and now they want to make up for it by allowing casinos to be built on reservations. Some Americans are jealous by the success of some of the Native American casinos and this jealousy has led to opposition. With all of the controversy about casinos, one thing is certain that the Native American people were unjustly treated during the early establishment of settlers. Having controlled the North American continent before 1600, today Native Americans live on 300 reservations spread out across the United States. These reservations do not amount to one percent of the land they had before the settlers came. The government of the United States should continue to allow Native American reservations to provide casinos to the public because they are beneficial to both parties as is evident by providing job opportunities, economic advantages, and rebuild the Native American culture.

Commas

?

Clarifying

AWK

-D.O. Sentence

BE SPECIFIC !!

WORD CHOICE

SOURCE?

?

accuracy?

WORDINESS

What do you mean here?

What does it mean? How? In what way?

How? In what way?

# five-minute revision workshop procedure

## Pre-class:

- *Discern a writing problem*
- *Transcribe sample of student writing exemplifying the problem*

## In class:

1. Show brief excerpt
2. Prompt detection
4. Prompt diagnosis
5. Prompt suggestions
6. Elicit/Suggest ideas about how to proofread



## BIOLOGY

The issue of potential impact on species richness under potential climate change conditions has largely been examined in alpine regions (Moen et al. 2008). Furthermore, a paper examined potential outcomes of species richness in Europe (Thuiller et al. 2006). However, the boreal forest of North America is also receiving attention in modeling distribution of tree species (McKenney et al. 2007). In addition, vegetation changes were modeled for northern Alaska in relation to climate change conditions (Euskirchen et al. 2009).

- **What's the problem here?**
- **What would you recommend?**
- **What makes this an easy error to make?**
- **How to proof?**



## BIOLOGY

*According to Moen et al (2008),* ~~The~~ issue of potential impact on species richness under potential climate change conditions has largely been examined in alpine regions. *This is significant because...* Furthermore, a paper examined potential outcomes of species richness in Europe (Thuiller et al. 2006) *Contrasting data, collected from studies of* the boreal forest of North America is ~~also receiving attention in~~ modeling distribution of tree species (McKenney et al. 2007), *which...*





## MICROBIOLOGY

My lab partner, Juan Ramirez, and I tested this experiment in three distinct periods. In the first period, I started by setting 6 LBG plates. We had obtained 3 LBG media and 3 LBT+ Antibiotic media (10 micrograms/milliliters of streptomycin). I obtained a tube of E.coli stock cultures from my instructor, and then, using the technique of pipetting, and the ratio of 1:10 and 1-100 dilutions, we used the 100 ul pipette and the 100 ul of E. coli into the first media (made with 0.1% peptone), which gave us a dilution factor of  $10^{-1}$ .

1. What's the problem here?
2. What would you recommend?
3. Why is this an easy mistake to make?
4. How to proof?



## PSYCHOLOGY

An examination, which was, primarily, focused upon the number of hours of

This study found a direct correlation between television watched by, and the frequency of aggressive acts for, each of the 60 television-viewing and instances of aggressive behavior in 60 children. children in this study, ultimately revealed a positive, or in other words direct,

correlation between the cumulative number of hours of television viewing and

cumulative number of instances of aggressive, and at times violent, behavior

exhibited by these child-viewers.

**What's the problem here?**

**What would you recommend?**

**What makes this an easy error to make?**

**How to proof?**



## Interior Design: compare-contrast

Consider large apparel chain or retail brand store such as Walmart. . . Target is another retail store that always competes with Walmart. Although Target considered a lot on price, too, they have another way to attract their consumers. As we know, Walmart's slogan is "every day low price." Target's slogan is "expect more, pay less." When you shop at Walmart, what they desire to find would be products in very low price. Apparently, Walmart is positioning itself as a low price retailer. And because of its position, in consumer's perception, it is really attracting us to shop at Walmart. On the other hand, Target provides low price as well, however, they decorate the store well with the cozy lightning and good presentation of product to make the store a comfortable environment for consumers. Therefore, consumers can expect more in stores than just seeking low price products.

**Strength? Weakness?**

**What would you recommend?**

**What makes this an easy error to make?**

## Field notes: concrete description versus interpretation

The observation done at the Mall of America was definitely the most interesting as to the events that took place. I notice that most of the younger children are in their own little world where everything looks new and intriguing to them. Their eyes and head wander all over the place while they are walking alongside their parents or guardians. The youth never get too far away from the adult figure next to them as they are in a sense, the child's safety. The adult is there to look after them and in the child's eyes, nothing can go wrong if that adult is with them. If the child gets too far away from their guardian, they quickly hurry back up to them to get back in the safety zone. I didn't really notice any sort of independence on behalf of the children besides the wandering eyes. It could be because of the large area that the Mall of America takes up that the children do not show independence. The large area could be intimidating to them and thus making them stay closer to the adults with them. It could be because the child is in a new place and is still taking in the experience as well. Perhaps the child does not know how to react and chooses to stay in the comfort zone of their guardian.

# thesis statements/ideas

**Debatable?**

**Non-obvious?**

**Of reasonable scope?**

1. In "Margaret," Maya Angelou portrays the racial tensions evident in the post-Reconstruction South.
2. In this essay, Conroy uses details to portray characters. We understand Learned Hand, for example, by looking at his eyebrows.
3. The North and South fought the Civil War for many reasons, some of which were similar and some of which were unique to each side.
4. While both sides fought the Civil War over the issue of slavery, the North fought for moral reasons while the South fought to preserve its own institutions.
5. In the Civil War, the primary fight was over oppression; Northerners fought the oppression of slaves while Southerners defended themselves against the spectre of their own oppression under Northern rule.



# COMPUTER SCIENCE

## Five-Minute Writing Workshop

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Question: Show that  $f_n \geq n$  for  $n > 5$ , where  $f_n$  is the  $n$ th Fibonacci number, defined by  $f_0 = 0$ ,  $f_1 = 1$ , and  $f_n = f_{n-1} + f_{n-2}$  for all  $n > 1$ .

Answer:

$$\begin{array}{cccccccc} 0, & 1, & 1, & 2, & 3, & 5, & 8 \\ f_0 & f_1 & f_2 & f_3 & f_4 & f_5 & f_6 \end{array}$$

Base:  $n = 5$ .

$$\begin{aligned} f_5 &= f_{5-1} + f_{5-2} \\ &= f_4 + f_3 \\ &= 3 + 2 = 5 \\ &5 \geq 5 \end{aligned}$$

Inductive:  $n \leq f_n \rightarrow n + 1 \leq f_{n+1}$

$$\begin{aligned} (n + 1) &\leq f_{n+1} \\ (n + 1) &\leq f_n + f_{n-1} \\ n &\leq f_n + f_{n-1} - 1 \\ n &\leq f_n \\ n &\leq f_n + f_{n-2} \end{aligned}$$

- 
1. How well does this work? Specific weakness/strength?
  2. If you detect a weakness, what might be the cause?
  3. How might we detect this issue in future assignments?



# ARCHITECTURE

## Is the Red Stag Supper Club Sustainable?

509 1st Avenue NE  
Minneapolis, MN 55413  
Studio 2030 Architects  
LEED-CI Silver

### Land

Yes

The Red Stag is located in an abandoned warehouse, making it a sustainable retrofit.

No

The project neglects to address sustainable landscaping

- Xeriscaping with drought-tolerant plants reduces need for irrigation.
- Rain gardens and green roofs help to reduce stormwater runoff and remove potential hazardous chemicals.



"The greenest building in the area that's already built!"  
redstagclub.com



Drought-tolerant plants used in a rain garden.  
www.greenstudies.com

### Water

Yes

The Red Stag makes a 70% reduction in water use.



Energy and water efficient dishwasher



Reduced laundering needs  
redstagclub.com

The Red Stag chose to remove all tablecloths in order to conserve on energy and potable water use for laundering.



Low-flow toilets



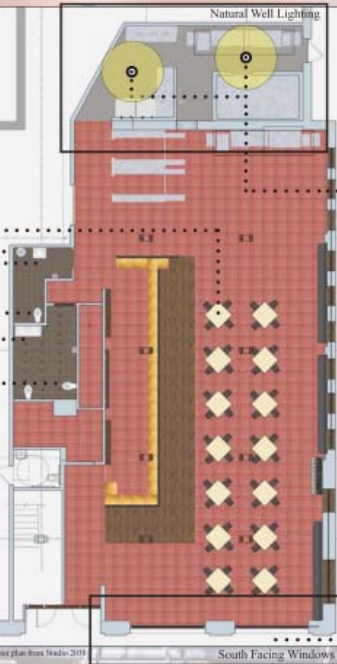
Low-flow showers



Low-flow sinks



Perspective section of the Red Stag restrooms



No

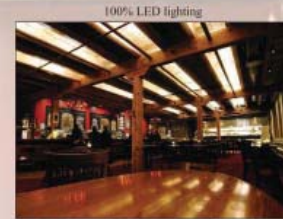
While the project maximizes methods to minimize use of potable water, reuse of nonpotable water and best management practices to reduce urban runoff could also be included

- Reuse of graywater for landscaping
- On-site filtration systems and BMPs can greatly improve the quality of water and reduce urban runoff.

### Energy

Yes

The Red Stag reduces its lighting energy by 52%, and makes significant efforts to reduce energy consumption for heating.



100% LED lighting

redstagclub.com



Light Wells

The Red Stag makes a 50% renewable energy contribution

Large-scale south-facing windows



Movable Awnings



Window awnings installed - October 21, 2010 - 12 p.m.



Interior with awnings shown - June 21, 2010 - 12 p.m.



Dyson Air-Blade



Melink-Intelilhood



No

The project does not use any on-site renewable forms of energy and doesn't address reinforced insulation within the building envelope.

- A ground-source heat pump would drastically reduce energy demands for heating and cooling.

XXX



ANY COURSE

# what's wrong here?

In Style: Ten Lessons in Clarity and Grace. Joe Williams challenges teachers to teach writing with clarity and grace. What is the problem with the following sentence?

## PRONOUNS

	<i>Subject Pronouns</i>	<i>Object Pronouns</i>	<i>Possessive Adjectives</i>	<i>Possessive Pronouns</i>
What?	I	me	my	mine
	You	you	your	yours
Why?	He	him	his	his
	She	her	her	hers
How to keep it simple?	It	it	its	its
<ul style="list-style-type: none"> <li>Use professors know a good thesis statement when we see it.</li> <li>So we can see the thesis statement when we see it.</li> </ul>	We	us	our	ours
take	You	you	your	yours
in	They	them	their	theirs



# five-minute revision workshop procedure

1. **Show sample**, noting that its author is not in the class.
2. **Elicit diagnosis** (“What’s wrong here?” or more simply, “Comments?”)  
Note: use of grammatical terminology is not usually a necessary element of the diagnosis.
3. **Elicit ideas about cause for error** (“Why might this writer have written this in this way?” “Why is it so easy to do this?”)
4. **Elicit suggestions** (“What would you write in the margin?”; “What would you suggest this writer do to remedy the problem?”)
5. **Elicit/Suggest ideas about how to proofread** for this kind of error.