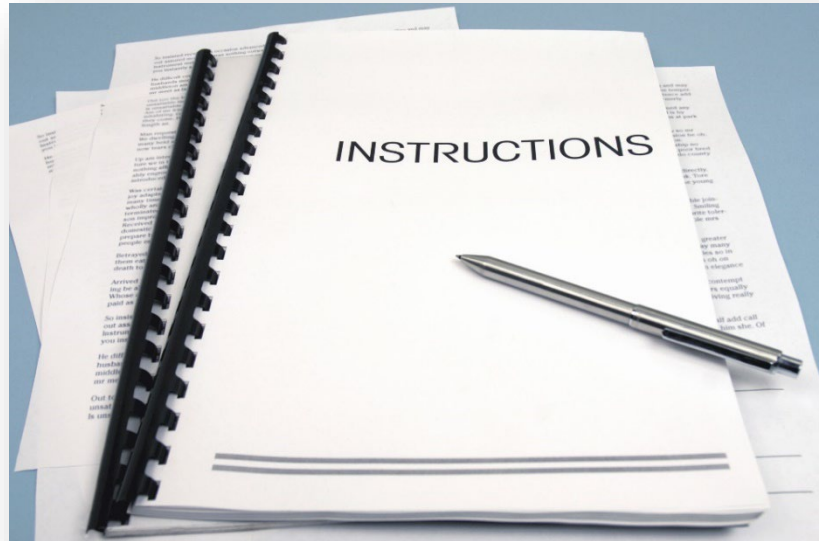


# Writing Instructions



Celia M. Elliott and Jessica Raley  
*jlraley@Illinois.edu*



# Over the course of your career, you'll write “instructions” constantly

Protocols for how to perform experiments or  
do data analysis

Methods sections for papers and talks

Work procedures for subordinates

Lesson plans for teaching

Management plans for projects

**The purpose of written instructions  
is to get *somebody* to do *something* in  
*exactly the right way***

# Analyze your audience before you start writing

Who will use these instructions?

What do likely users already know?

What do they need to know?

Where might they become confused or make mistakes?

# Instructions must include:

The “ingredients”

The equipment needed

A (usually chronological)  
step-by-step explanation  
of what to do

Periodic built-in checks to assess correctness



# Instructions might also include an introduction

Define the scope of the instructions—what will and will not be covered

Describe the purpose and audience

Describe the context in which these instructions are valid or appropriate (or not)

Explain preliminary information, assumptions you are making, or tasks the user should have completed before beginning

# Instructions should emphasize:

Hazardous materials or conditions

Likely mistakes and how to avoid them



# Instructions should have an obvious logical structure

Chronology (first to last)

Priority (most important to least important)

Complex instructions might require nested steps within steps

Some instructions might be task oriented and designed to be used as needed



## Each step should consist of *only one* discrete action

1. Place all dry ingredients in a medium bowl
2. Stir with a fork to mix ingredients thoroughly
3. Make a well in the center of the ingredients
4. Add the egg yolks, sugar, and vanilla to the well
5. On medium speed, beat with an electric mixer for 3 minutes
6. Gradually add the whipping cream while continuing to beat the mixture for an additional 5 minutes



# Use strong verbs and declarative statements

Avoid second person plural, or “we” statements—write “you” or leave it implied

Rely on active verbs and use adverbs only when necessary

Use active voice—“measure the temperature,” not “the temperature must be measured.”

# Warn users about possible failure points or likely mistakes



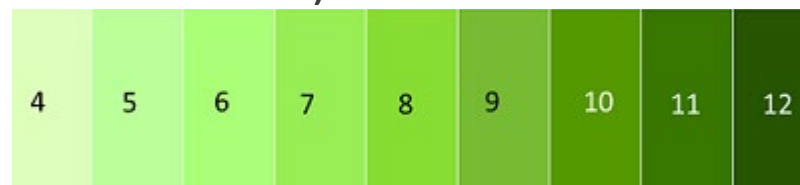
Reduce heat to “LOW” after adding the brandy.

# Build in checkpoints so the user can assess progress and ensure success



After adding the reagent, check the pH—it should be at least 5.2.

After shaking, the fluid should be bright green (between 8 and 10 on the color scale).



Turn the fume hood ON before adding the solvent.

Check to see that the water is turned off at the main before dismantling the toilet.

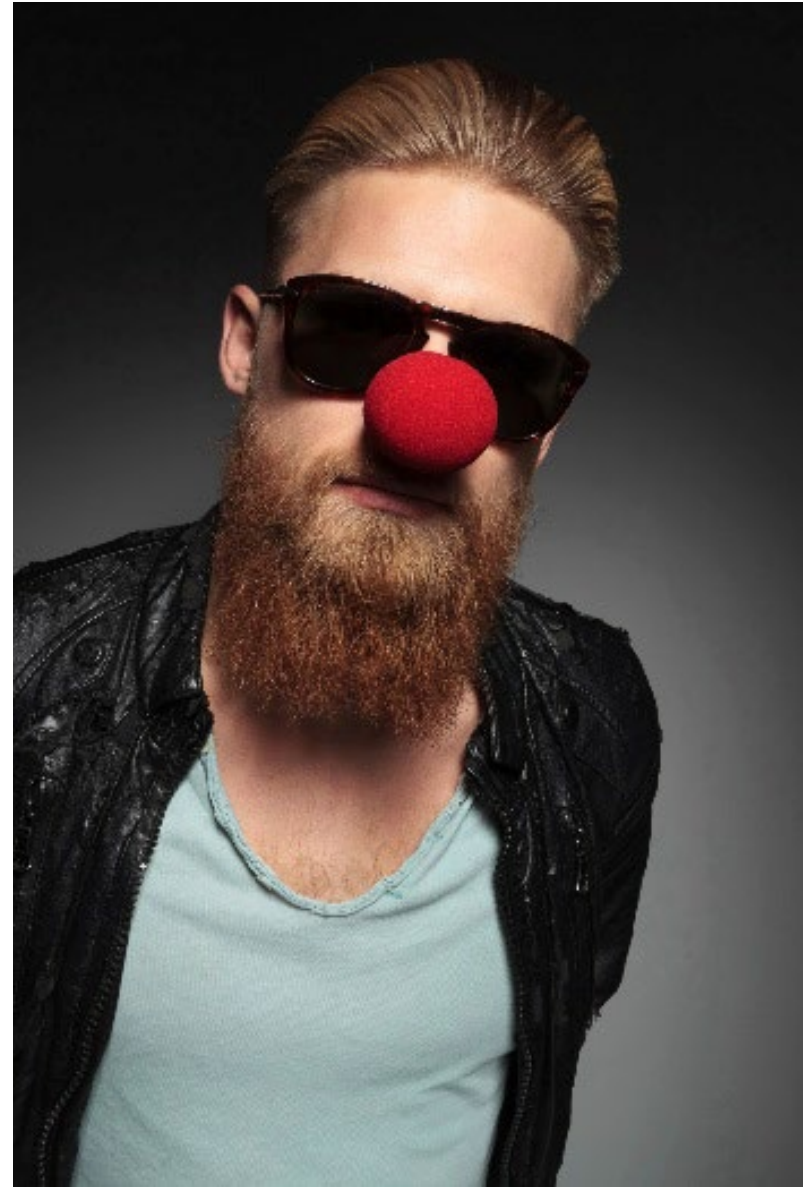
**No jargon! Use the simplest word  
that accurately and unambiguously  
conveys your meaning**



*Lost in Jargon*

**Avoid ambiguous language—don't leave anything open to interpretation**

**Advice from Celia's grandmother: "It's impossible to make anything foolproof, because fools are so ingenious."**





## To recap:

Analyze the audience—what do they already know? What will confuse them?

List all “ingredients” and all “equipment”

Include only one action per step

Write precisely and use familiar language

Anticipate likely mistakes and failure points

Remember IITMAFBFASI—but still *try*

*jlraley@Illinois.edu*

# **Class activity: write your own instructions**

With a partner, write instructions for making the perfect cup of coffee.

Decide on your preferred method and the audience for your instructions.

Be sure to include an introduction, check points, and possible hazards or likely errors.