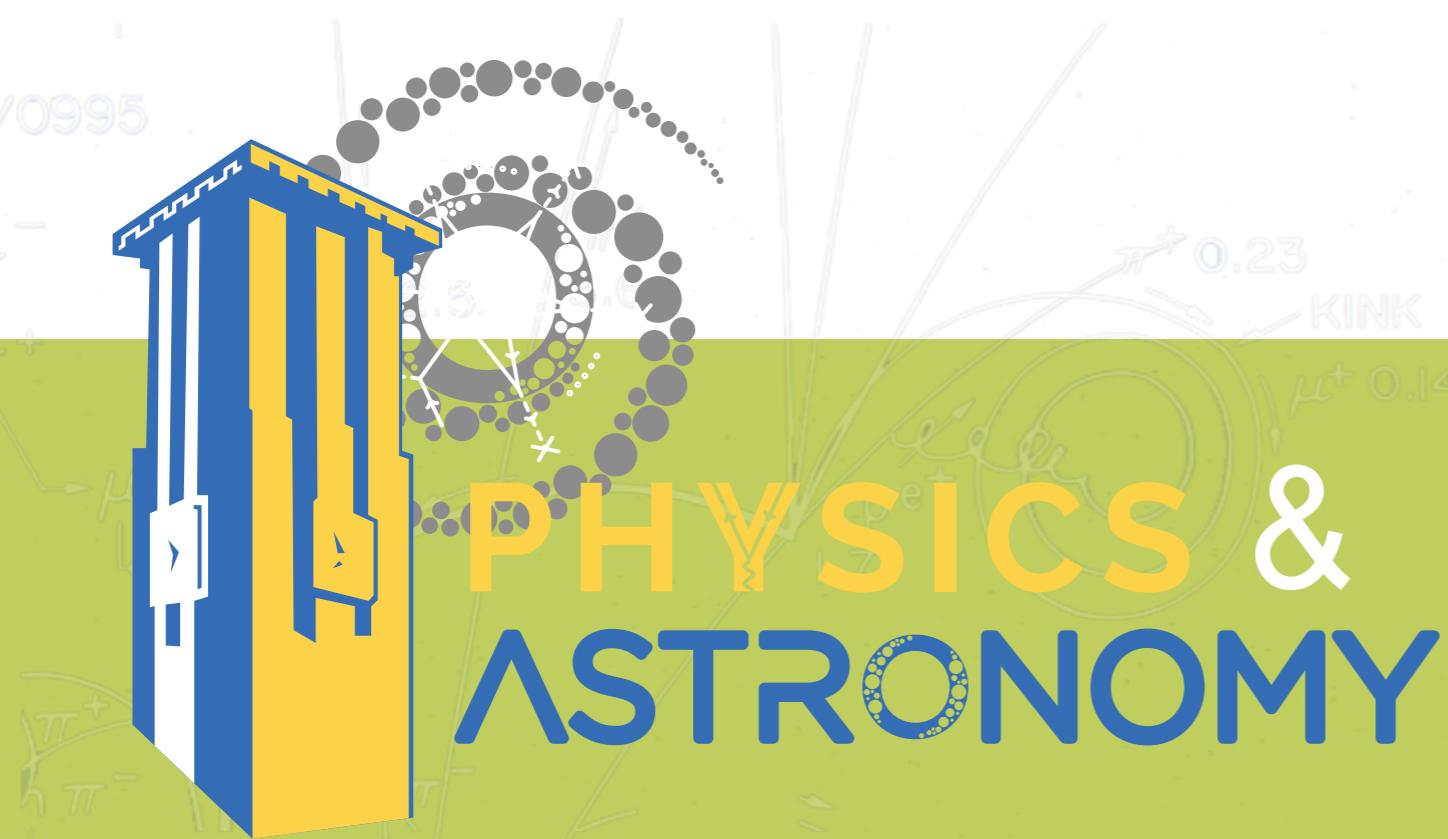


# WHAT WE HAVE LEARNED

## COLLECTIVE WISDOM OF NOTE CARDS

**Flip Tanedo**

UC Riverside Particle Theory



[flip.tanedo@ucr.edu](mailto:flip.tanedo@ucr.edu)

PHYSICS 231 (FALL 2018)



7 DEC 2018

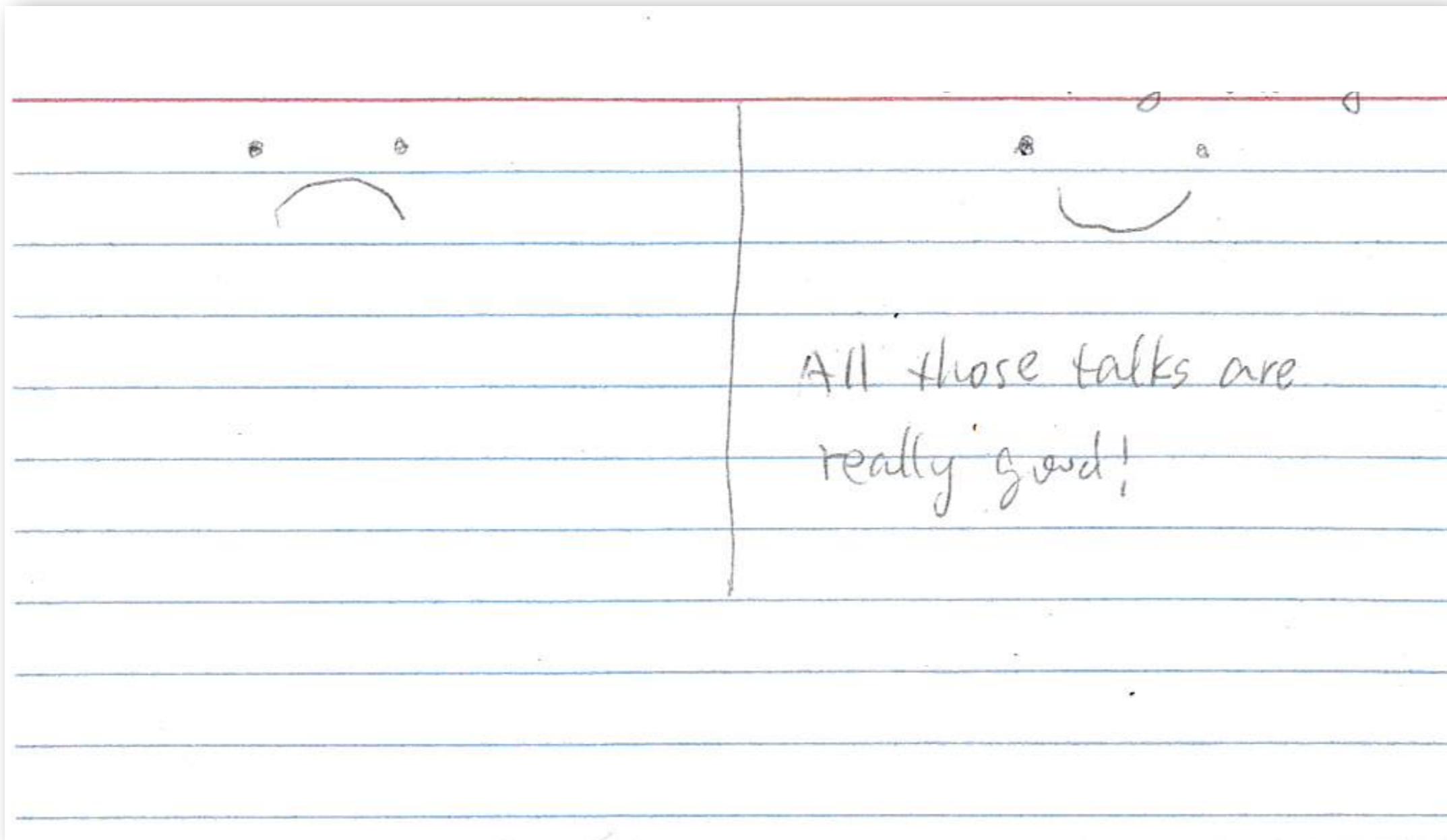
Physics 231 (Fall 2018)  
Methods of Theoretical Physics

# Instructor summary

I am thoroughly impressed by this cohort.  
You have been thoughtful, funny, and good sports.

I've learned a lot from your questions & talks.

... on that note, please remember your iEval. 😊



actual notecard

flip.tanedo@ucr.edu

PHYSICS 231 (FALL 2018)

# Why did we do this?

## Metacognition learning how you learn

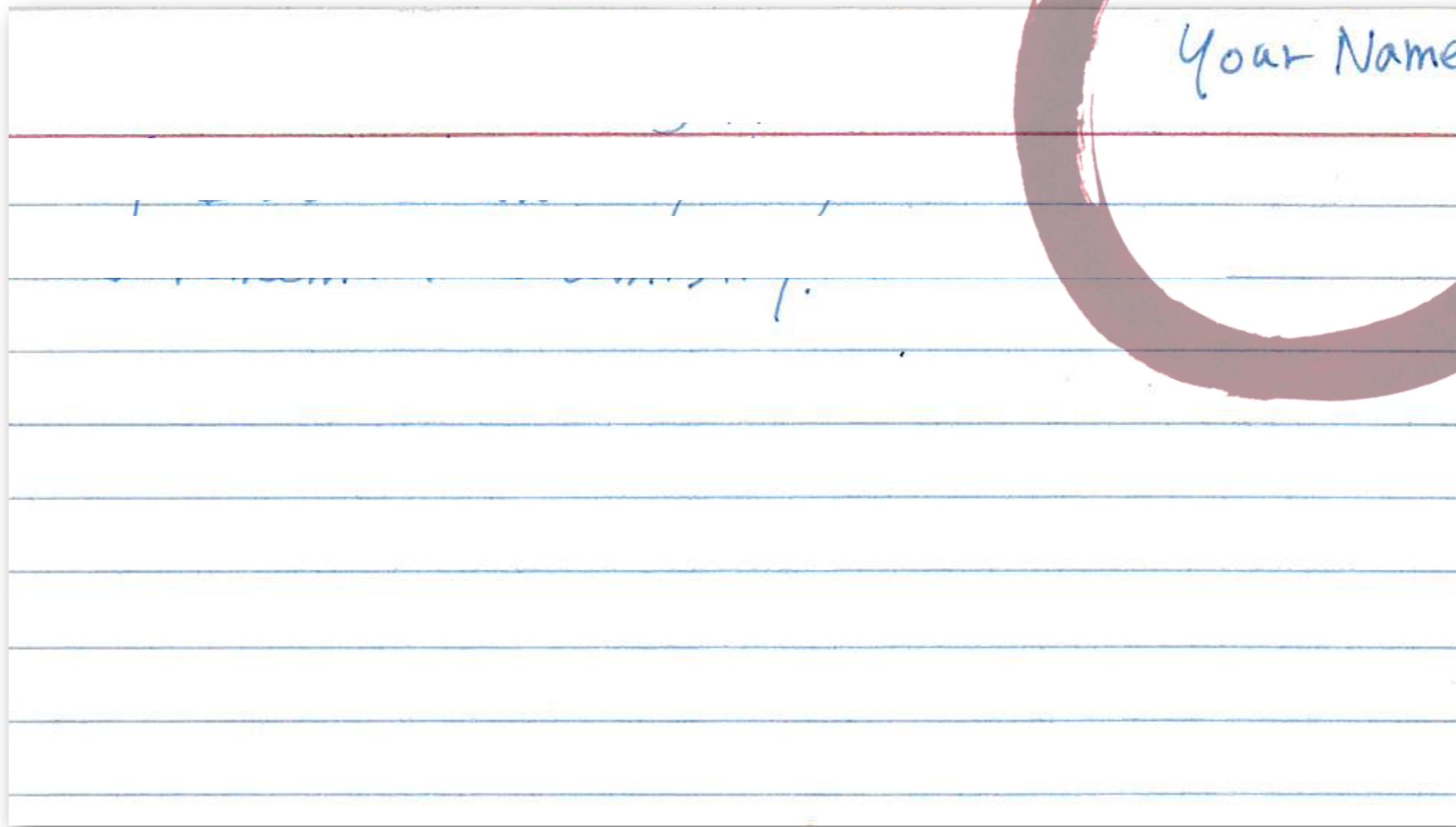
Active engagement

Agency in your ~~education~~ *training*

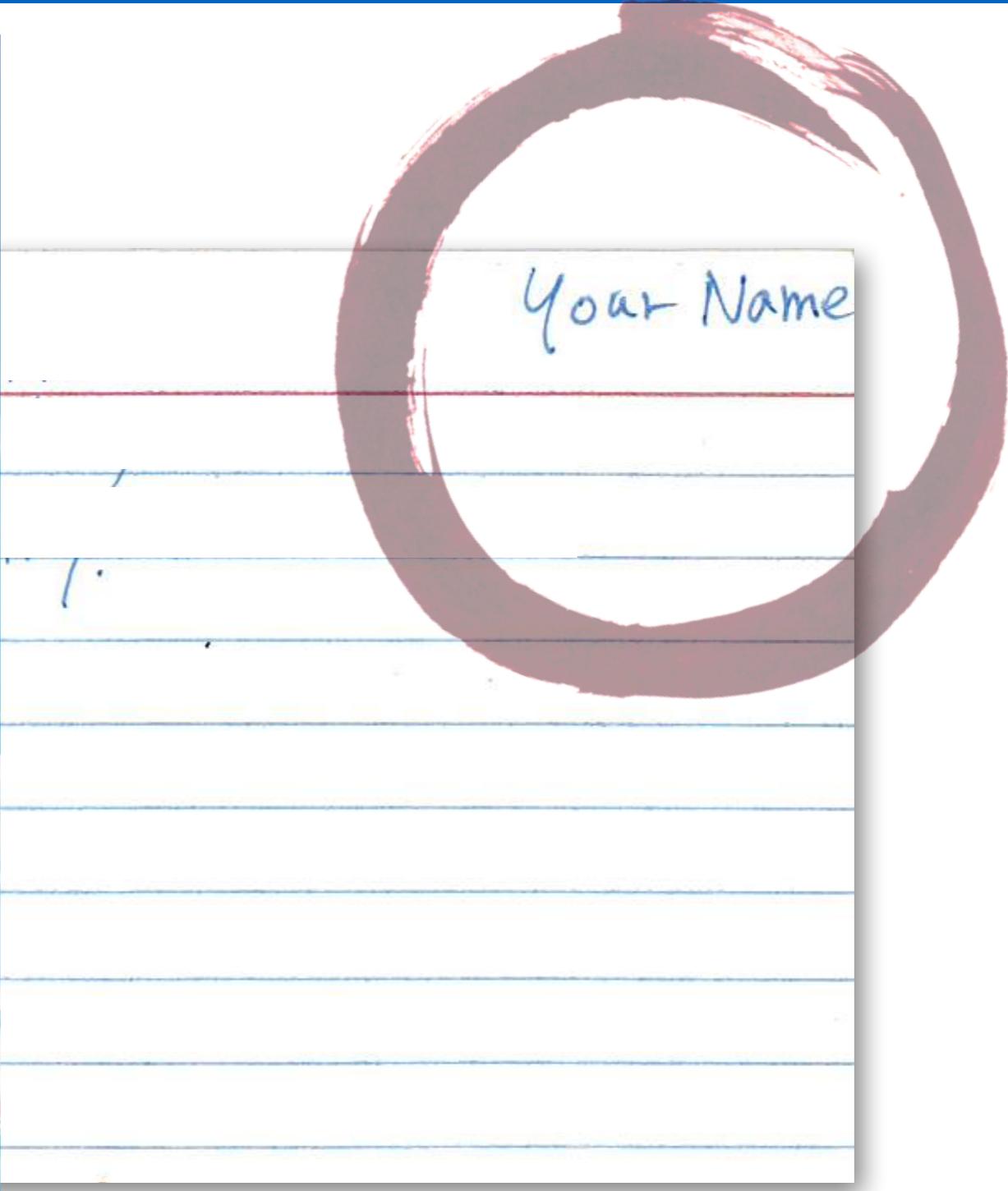
Approach your research career this way

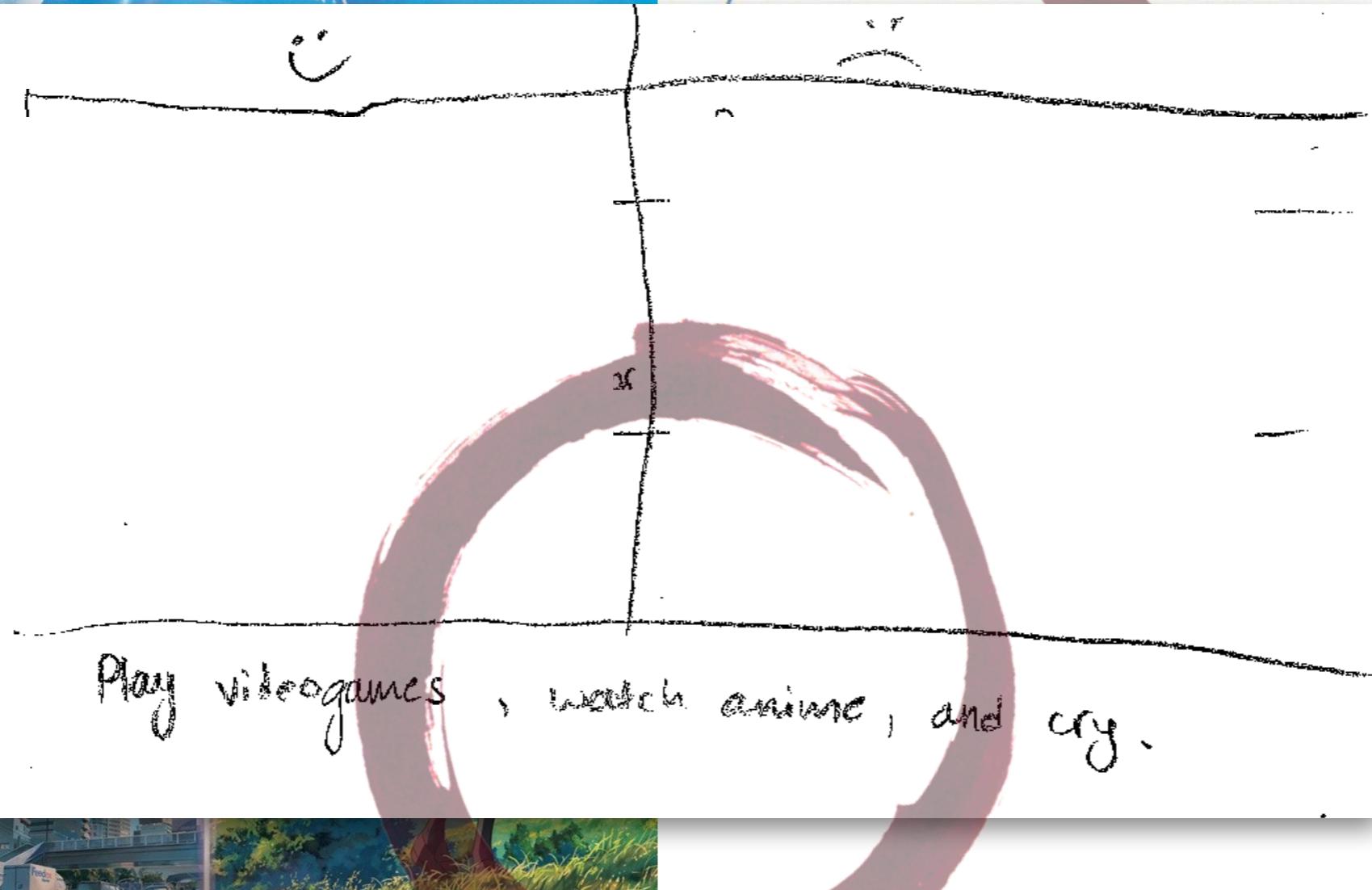
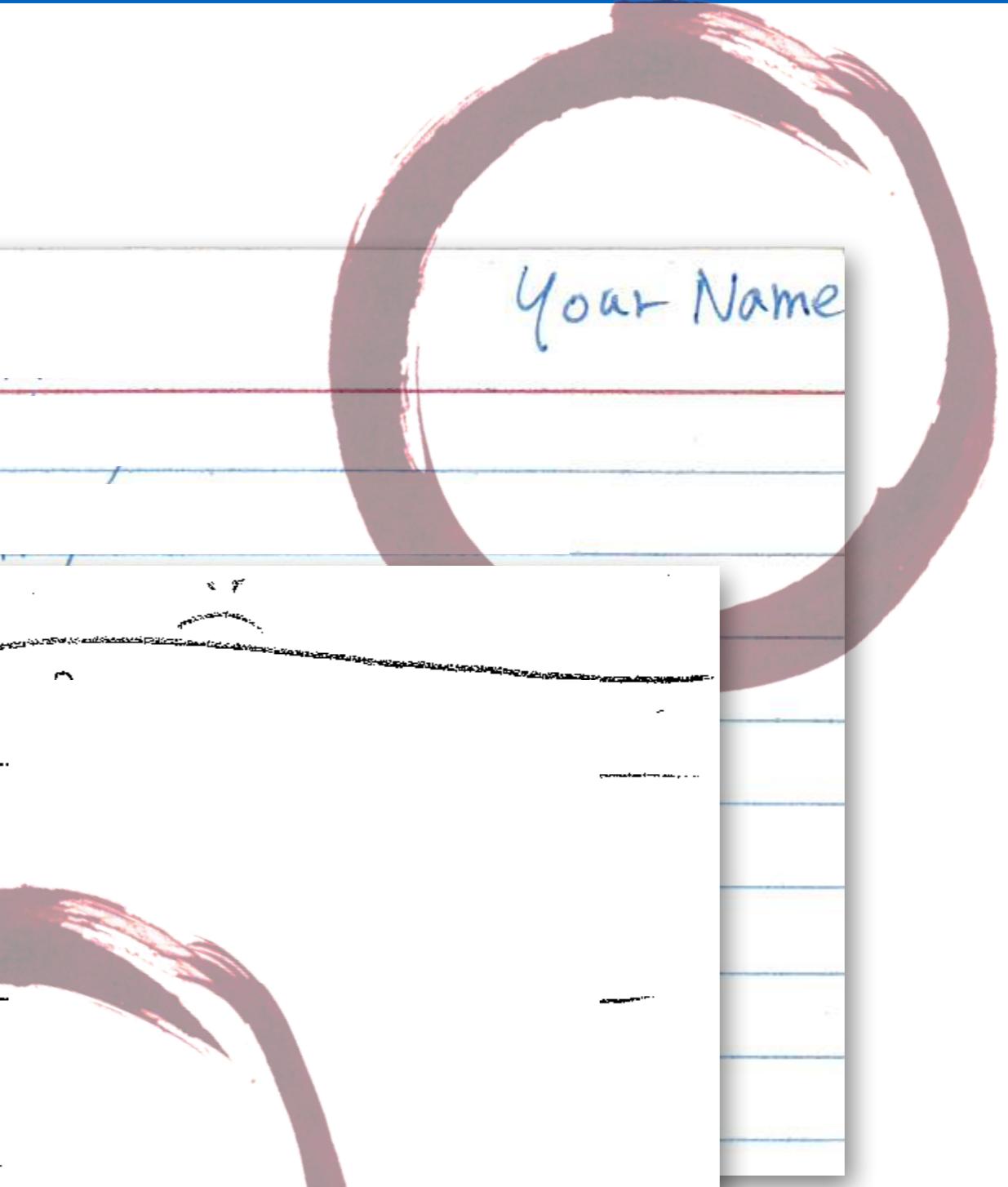
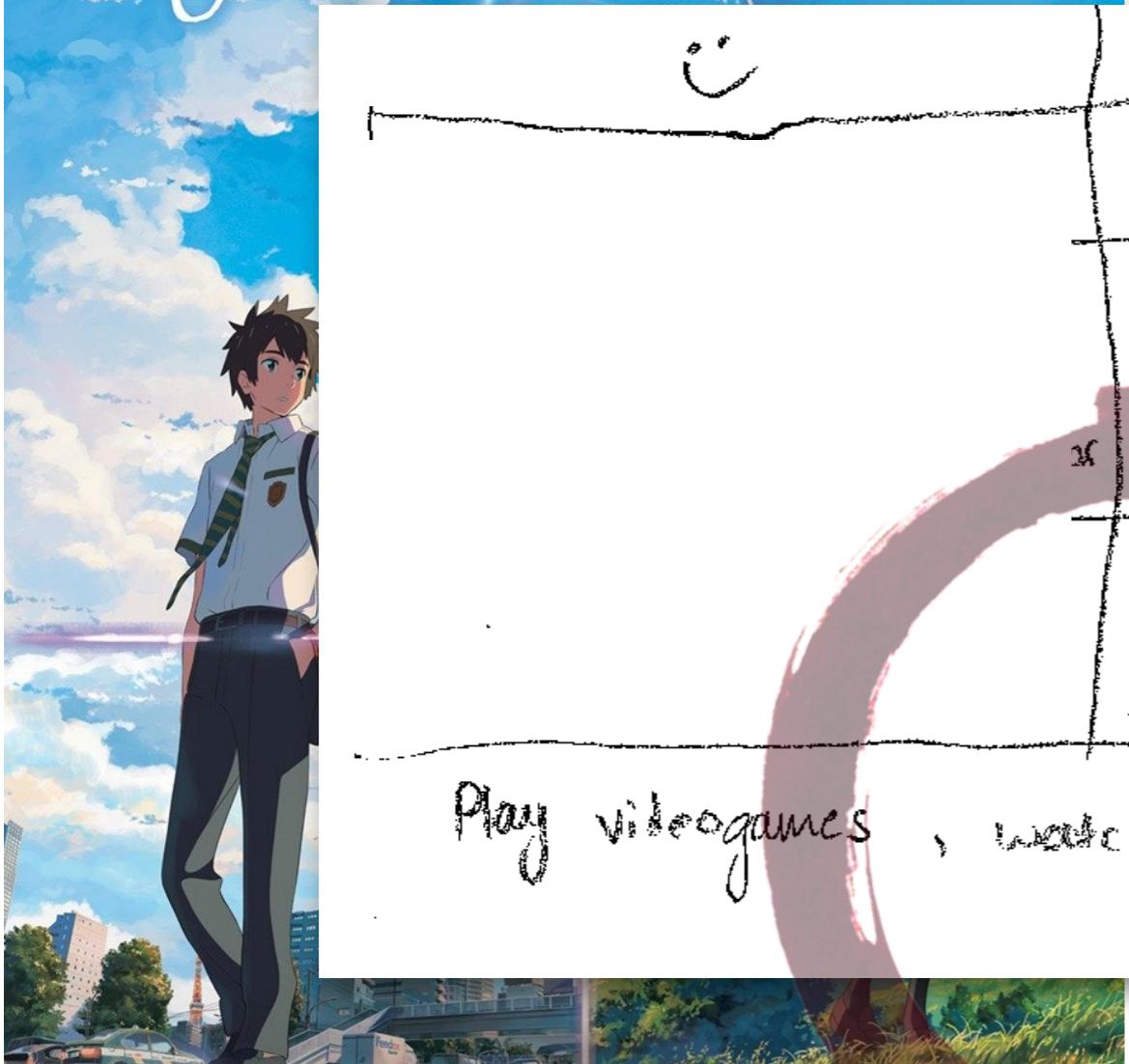
How do you succeed?

# Pop-Talk Feedback



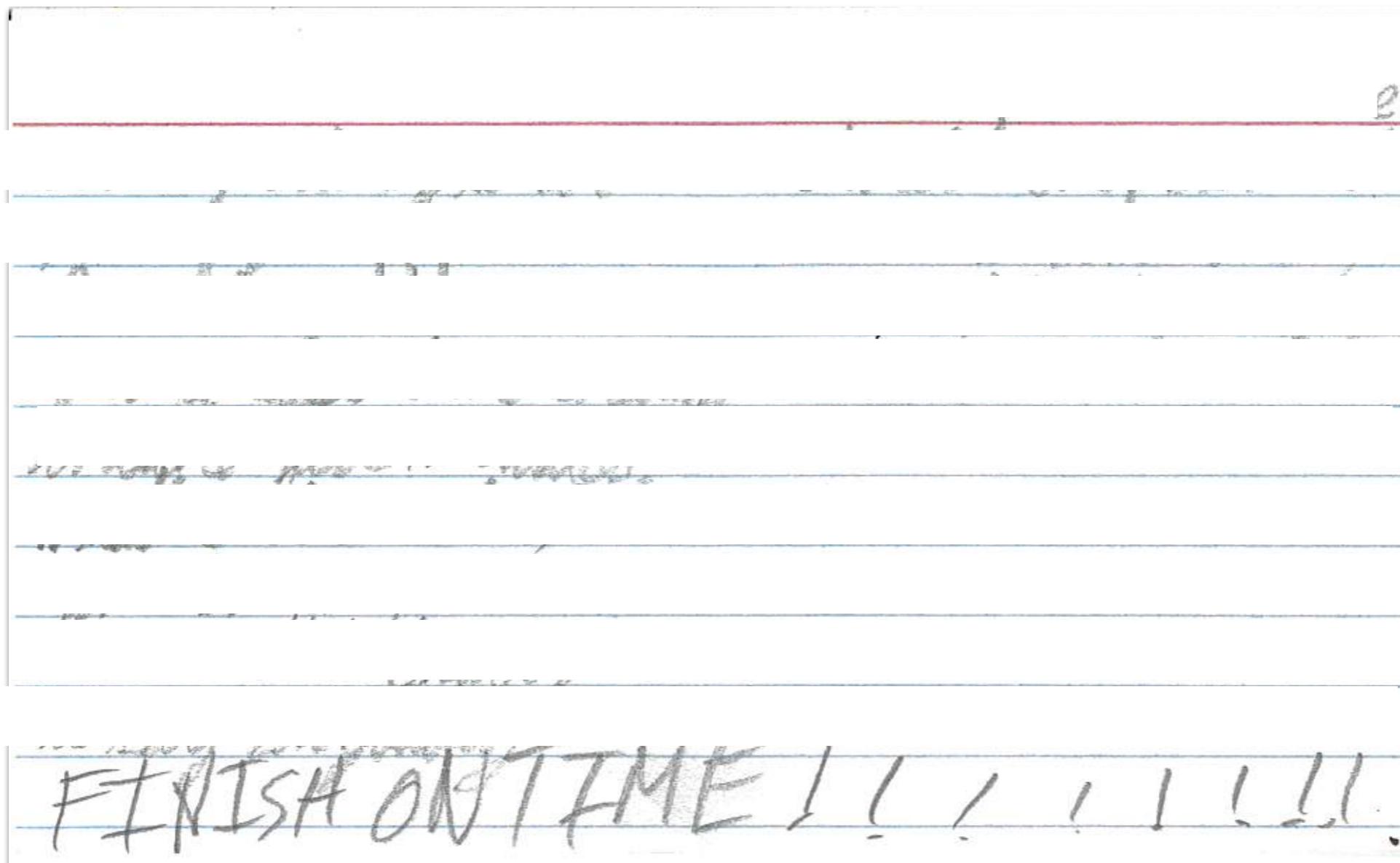
I am tickled by the number of people who did this.





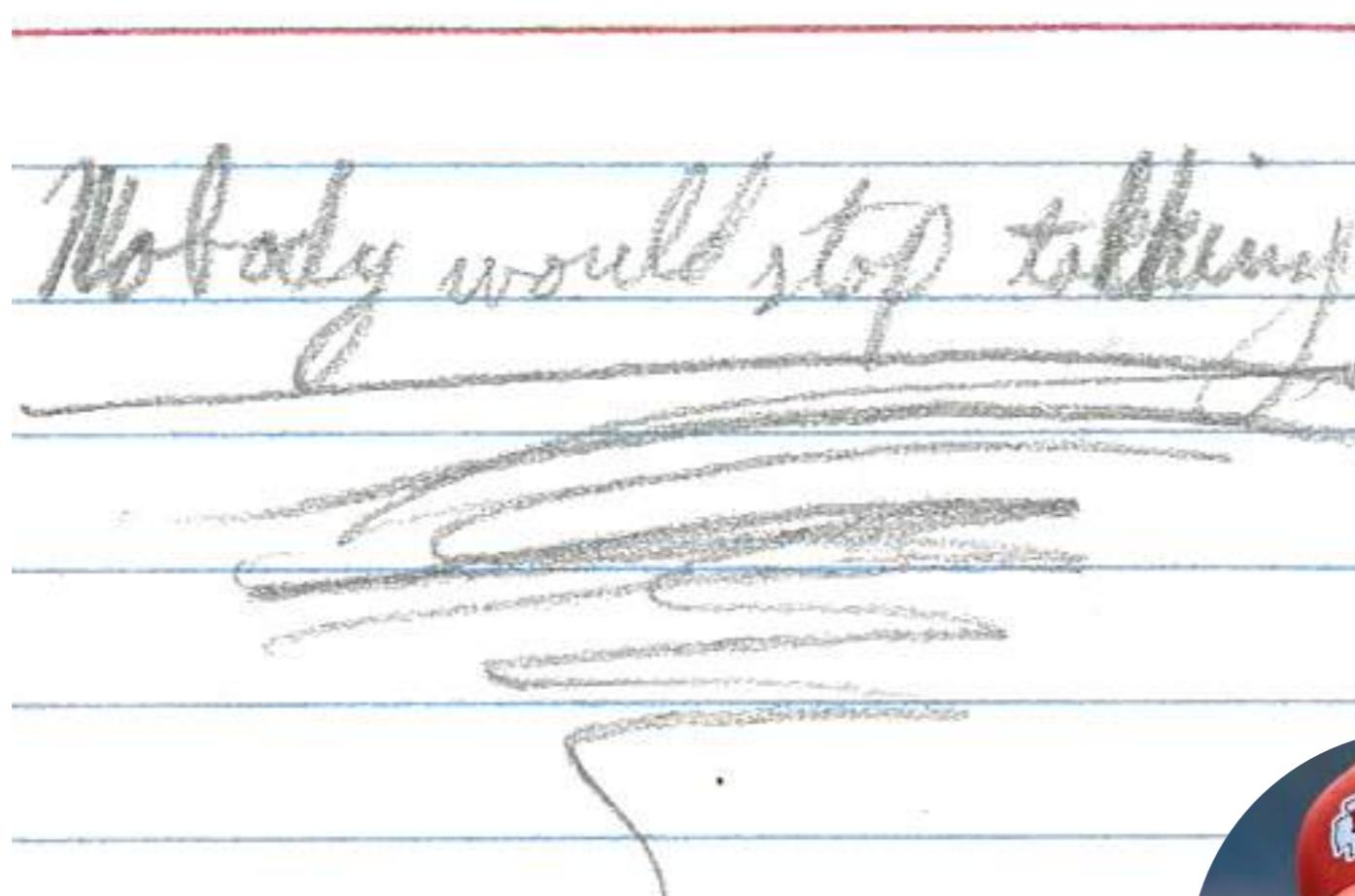
# Biggest Collective Lesson

Do not go over time.



# Biggest Collective Lesson

Do not go over time.

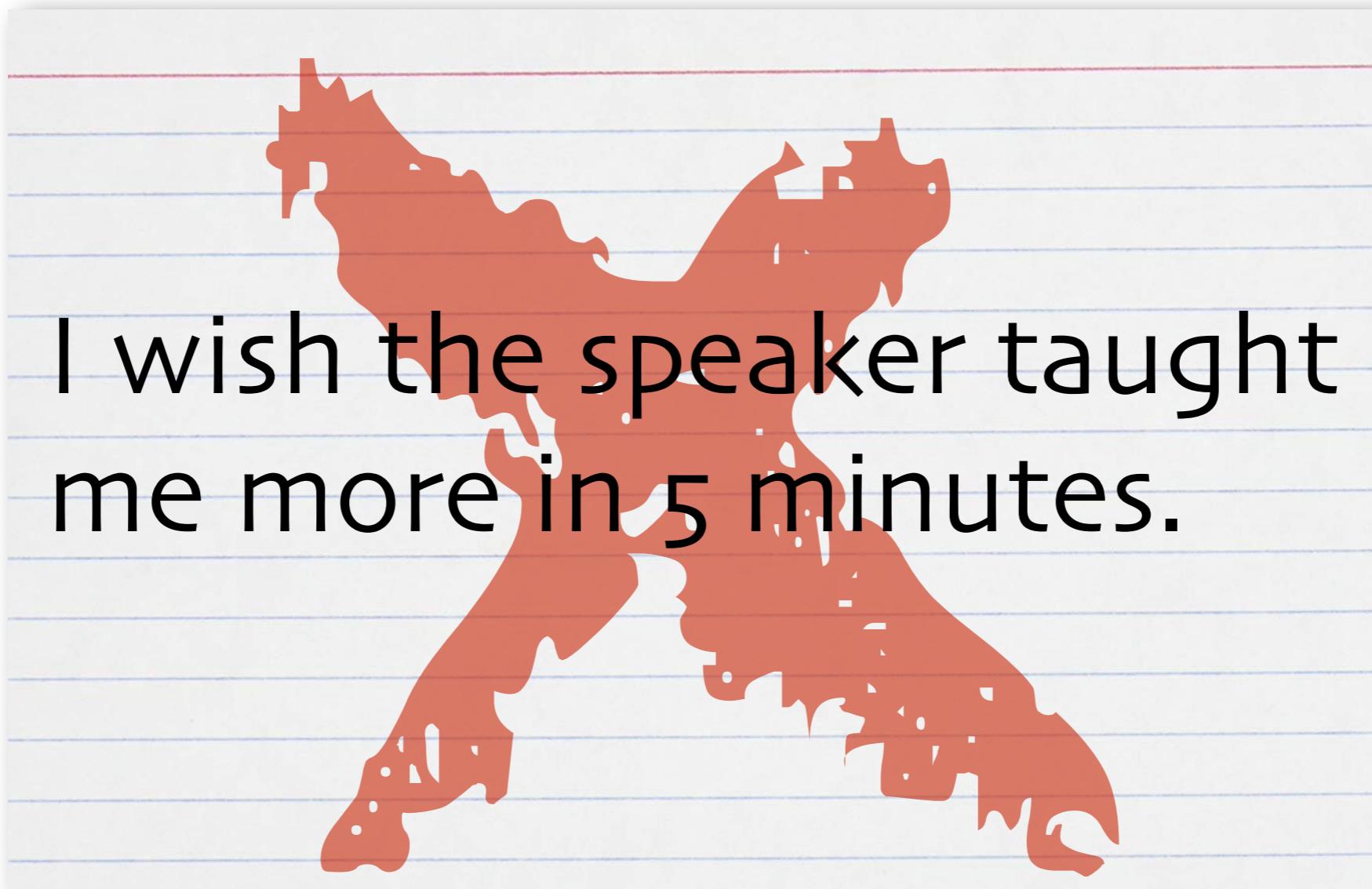


people going way  
over their time

Clock management as  
bad as Andy Reid



# ... said no notecard ever



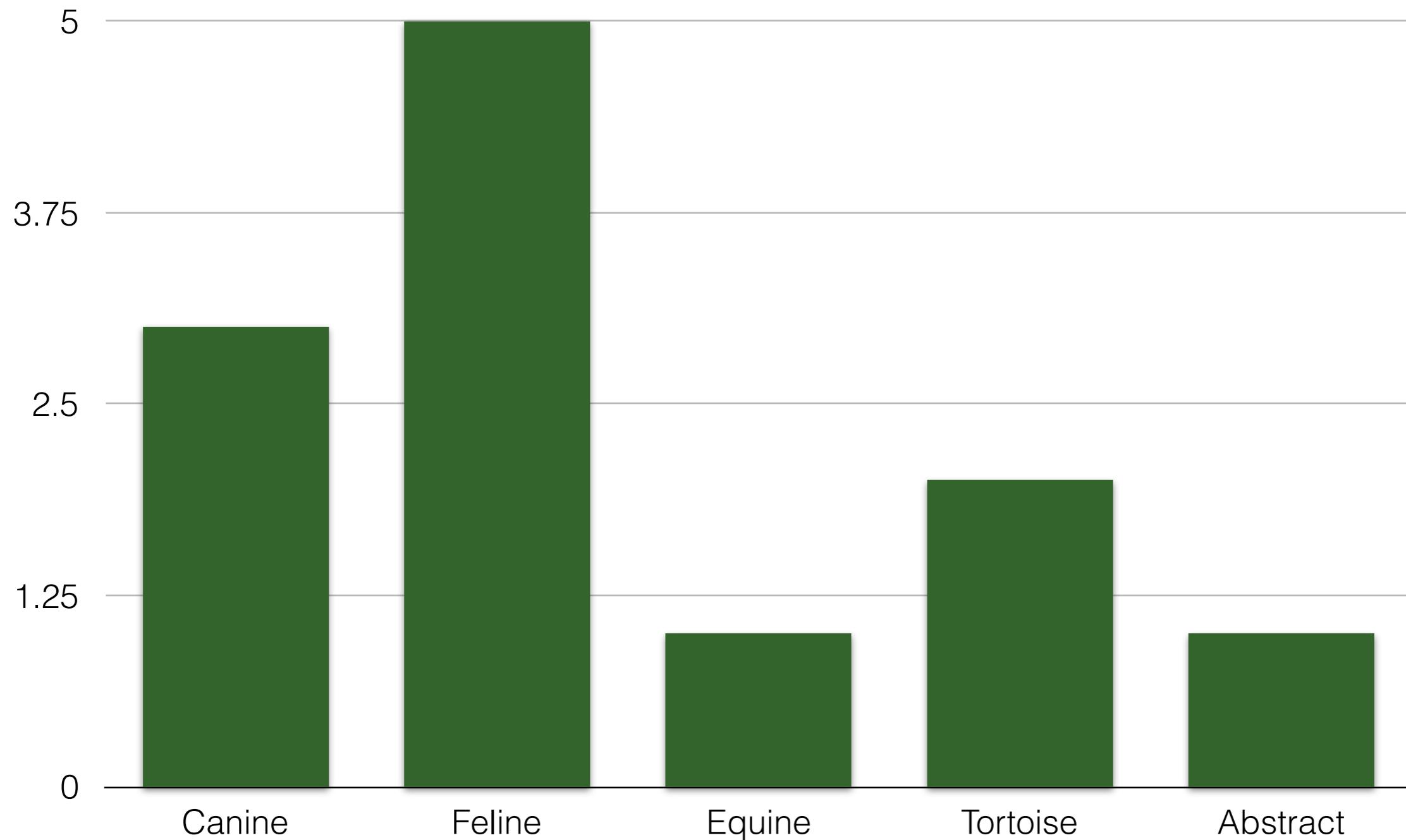
# Presenting to the audience

- Make eye contact / **connection**
- Talk to **audience**, not board/notes
- Don't block the board / write small
- **Know** your audience  
(background knowledge)
- Be **personable** (& enthusiastic)

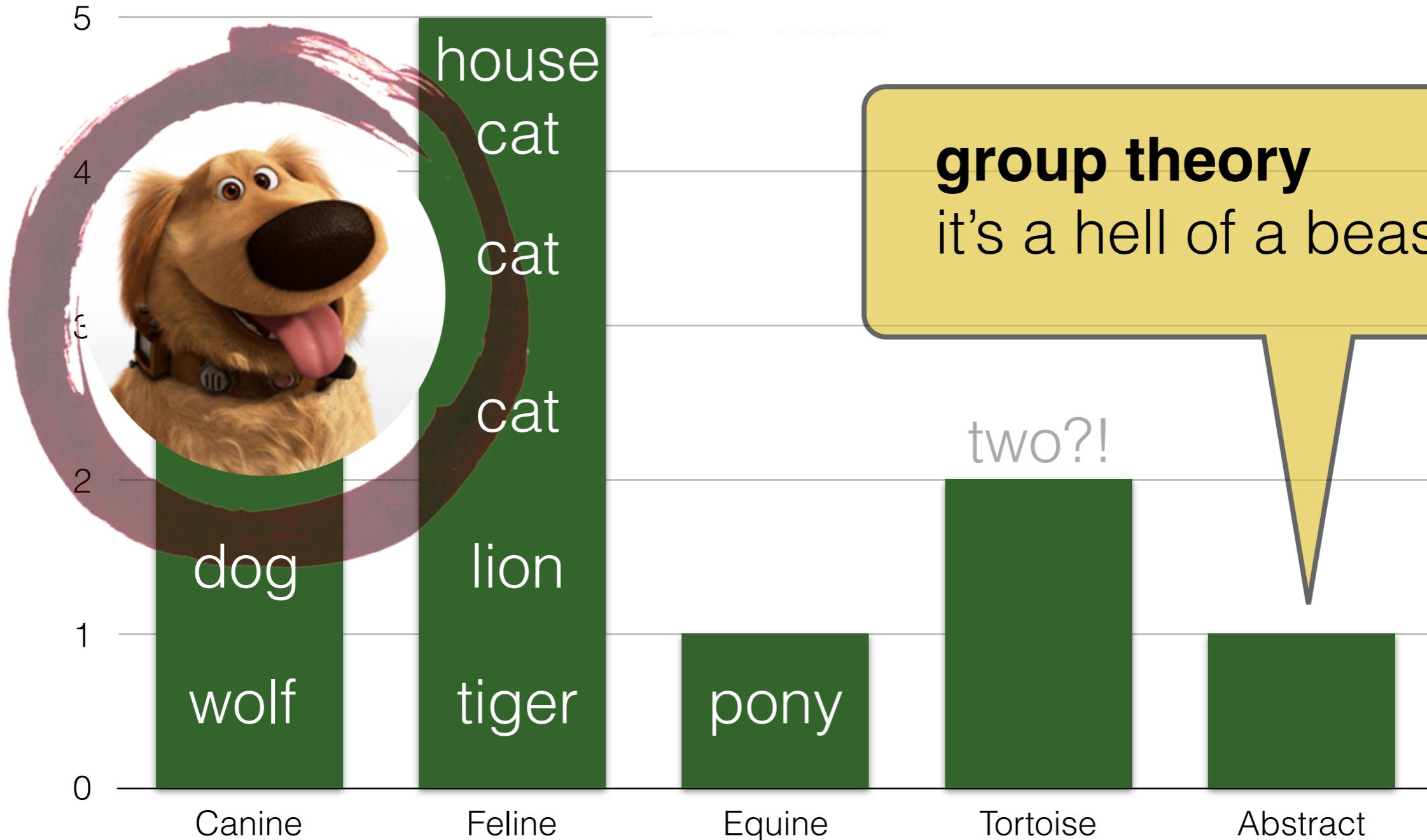
# People Liked

- **Visualizations**: graphs, plots  
... especially when you label the axes & explain
- **Conclusion** at the beginning
- **Write key points**
- **Creativity**: share a new twist on the idea, insight
- **Examples** / anecdotes
- **Defining your jargon**

# Spirit Animal Survey



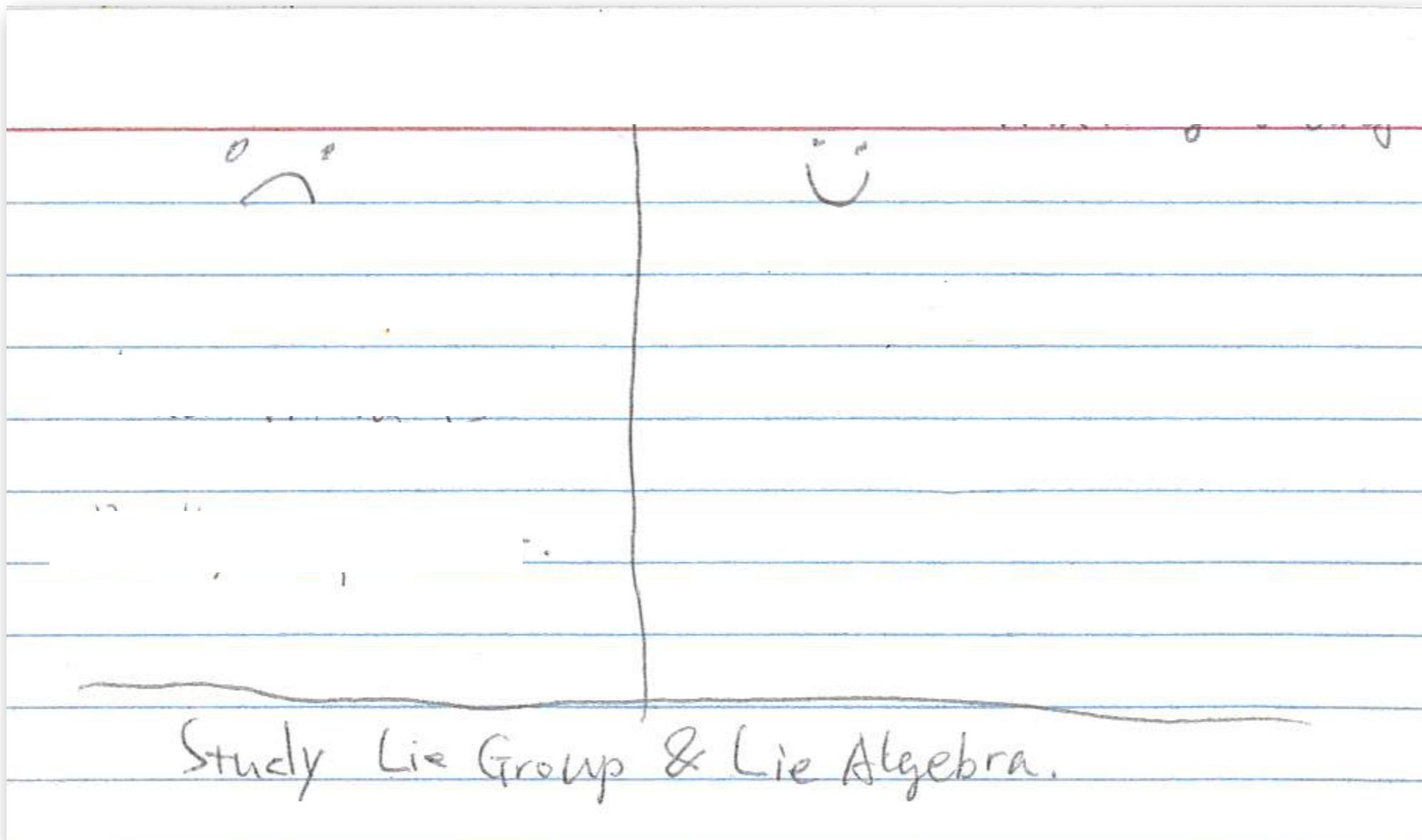
“the dog from *Up*”



Spirit Animal: Cat  
I do what I want and  
I don't like to leave my house

# Group theory... very popular

What fun thing are you doing this winter?



# Group theory... very popular

Semi-Simple Lie Algebras and  
Their Representations

Robert N. Cahn

Lawrence Berkeley Laboratory  
University of California  
Berkeley, California



# Other weird spirit animals

Spirit animal

I believe my  
patronous

on the "Pottermore"

is Buzzard.

Flesh balls for their calming roundness

Beaver/a song bird → flying beaver?

## Honorable mention:

Owl,

Snake,

Swallow,

decline for religious reasons

wtf is DF2014?

# Winter Break Plans

This winter I'll take up carpentry or something, who knows

Going to D.C. for a 90's themed New Years Party

Suggestion: watch the recent CNN documentary on the 90s (Netflix)

Something fun: sleep

Sleeping is fun

Sledding, sleeping, snowballs

Smash Bros

# Winter Break Plans

In winter , I'm driving 2500 miles  
across east to west coast .



Hearst Castle



Redwoods



Solvang

**In addition to:** Yosemite, Joshua Tree / Anza Borrego, little beach towns (Pismo Beach, San Luis Obispo, Morro Bay), museums / aquariums (Monterrey, Academy of Science, Exploratorium...)

# Winter Break Plans: Local



Mission Inn's  
Festival of Lights

**1.5 hr away:**

Orange County: beach  
Palm Springs: desert  
Big Bear: mountain

Where to take your parents / dates / etc.:

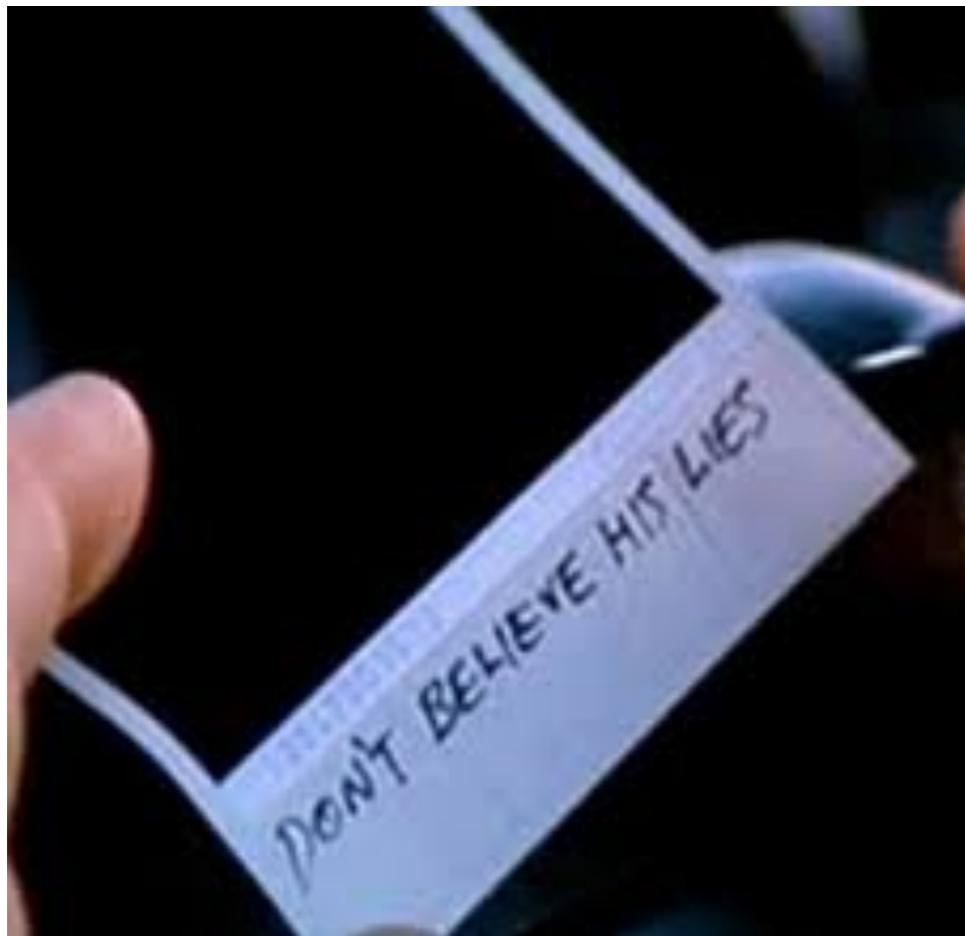
**Fancy** (\$\$\$): Le Chat Noir

**Hip**: Riverside Food Lab

**Yummy**: Salted Pig after 10pm Thu/Fri/Sat

# To think about

Something fun	3. Coffee trip?
1. Show:	4. RESEARCH?
2. Research?	



“...our students generally don't choose advisors until the Spring...”

- actual e-mail

**Think about this now!**

# Space heater + extension cord

$$P = I^2 R ; I = \frac{V}{R} \Rightarrow P = \frac{V^2}{R}$$

space heaters have a very low resistance so that they can generate as much power in the circuit as possible, which is given off as thermal energy. Google says most power strips can only handle about 1200 watts, or 15 A of current. Another google result gives an avg. power rating of a space heater as about 3000 watts, nor in other words:

Power level > 9000 = ~~My~~<sup>that's</sup> supposed to be a flame

# Out of context

Jonathan made me hungry.

sandwich, spaghetti and meat ball

- Functions are cool (like bow ties)

These lines are too small  
and my pencil's smudging



These lines are too small  
and my pencil's smudging