

Day 2

Train the Trainer

Recap from Day-1

Building Skill With
Practice



Recap from Day-1

Expertise and
Instruction



Recap from Day-1

Memory and
Cognitive Load



Recap from Day-1

Building Skill With
Feedback



Recap from Day-1

Motivation and
Demotivation



Recap from Day-1

Mindset

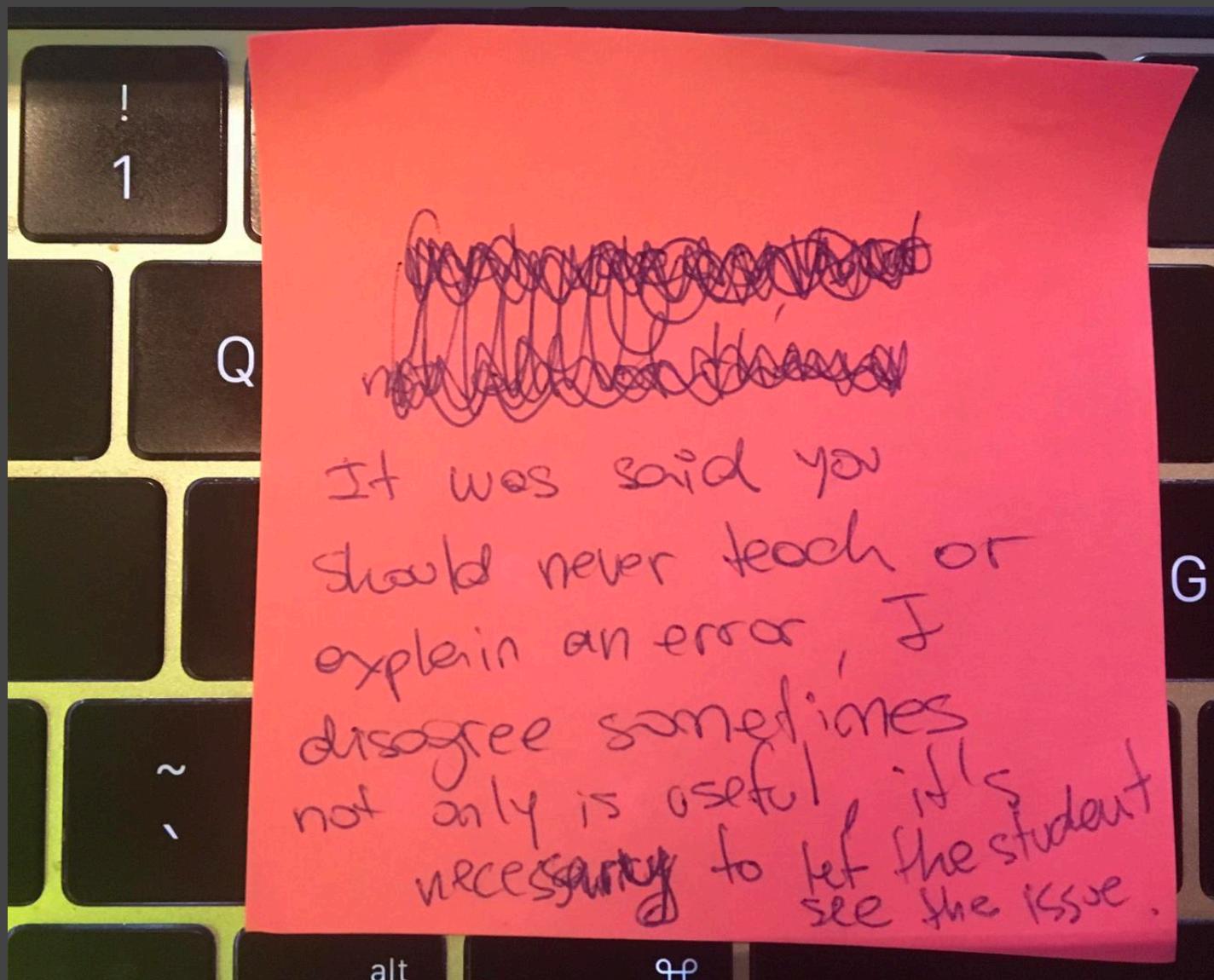


Recap from Day-1

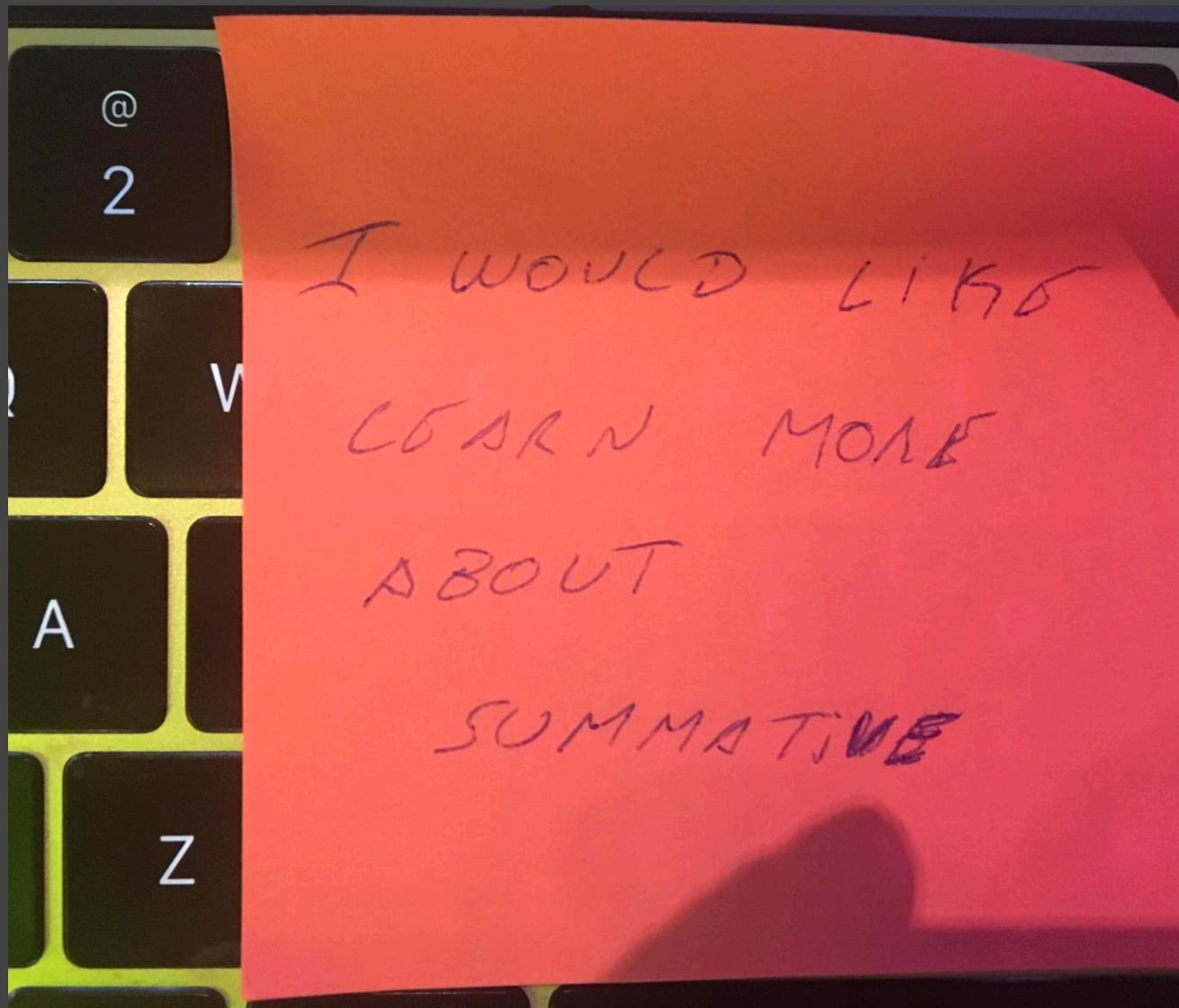
Teaching is a Skill



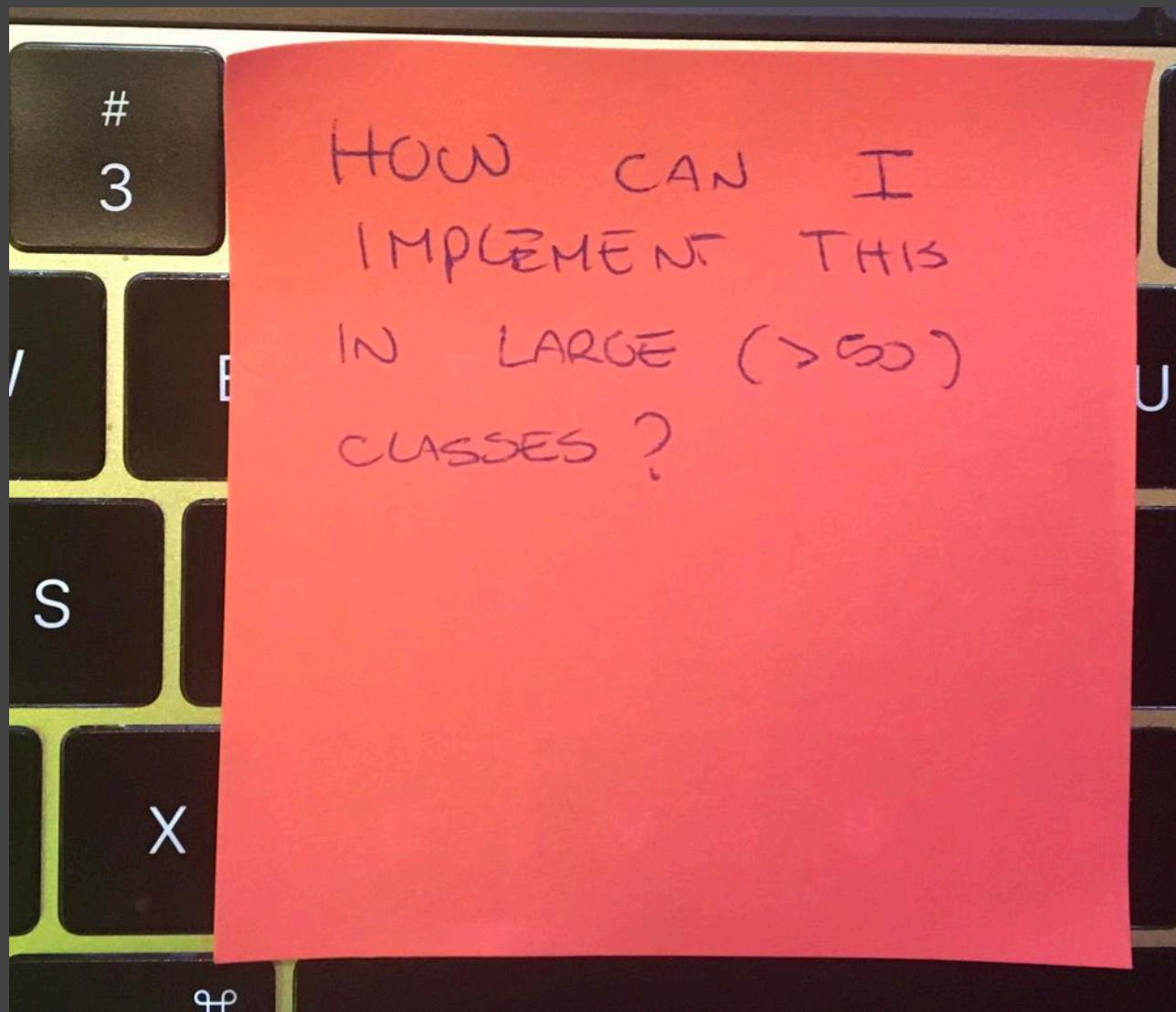
Addressing the red stickies



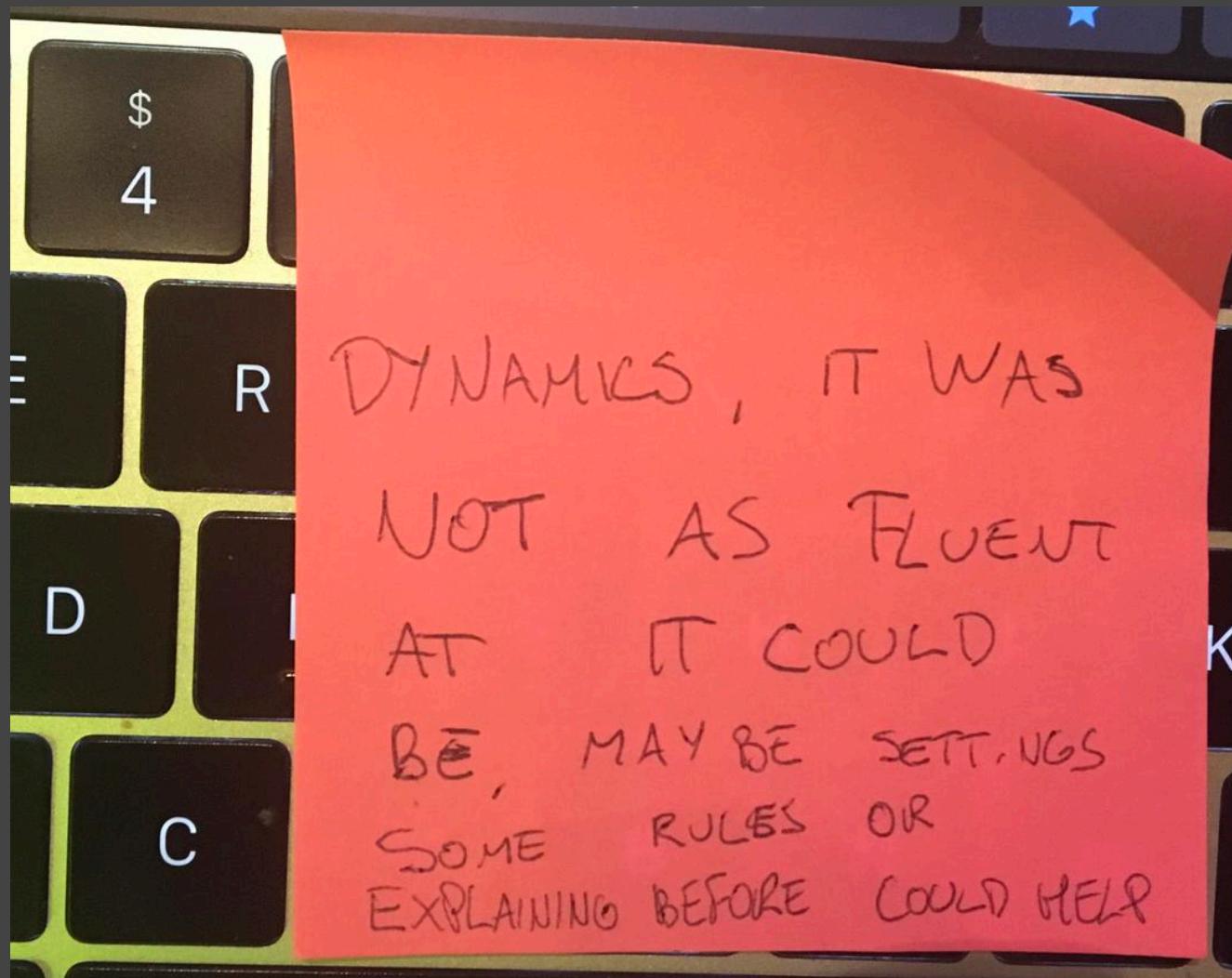
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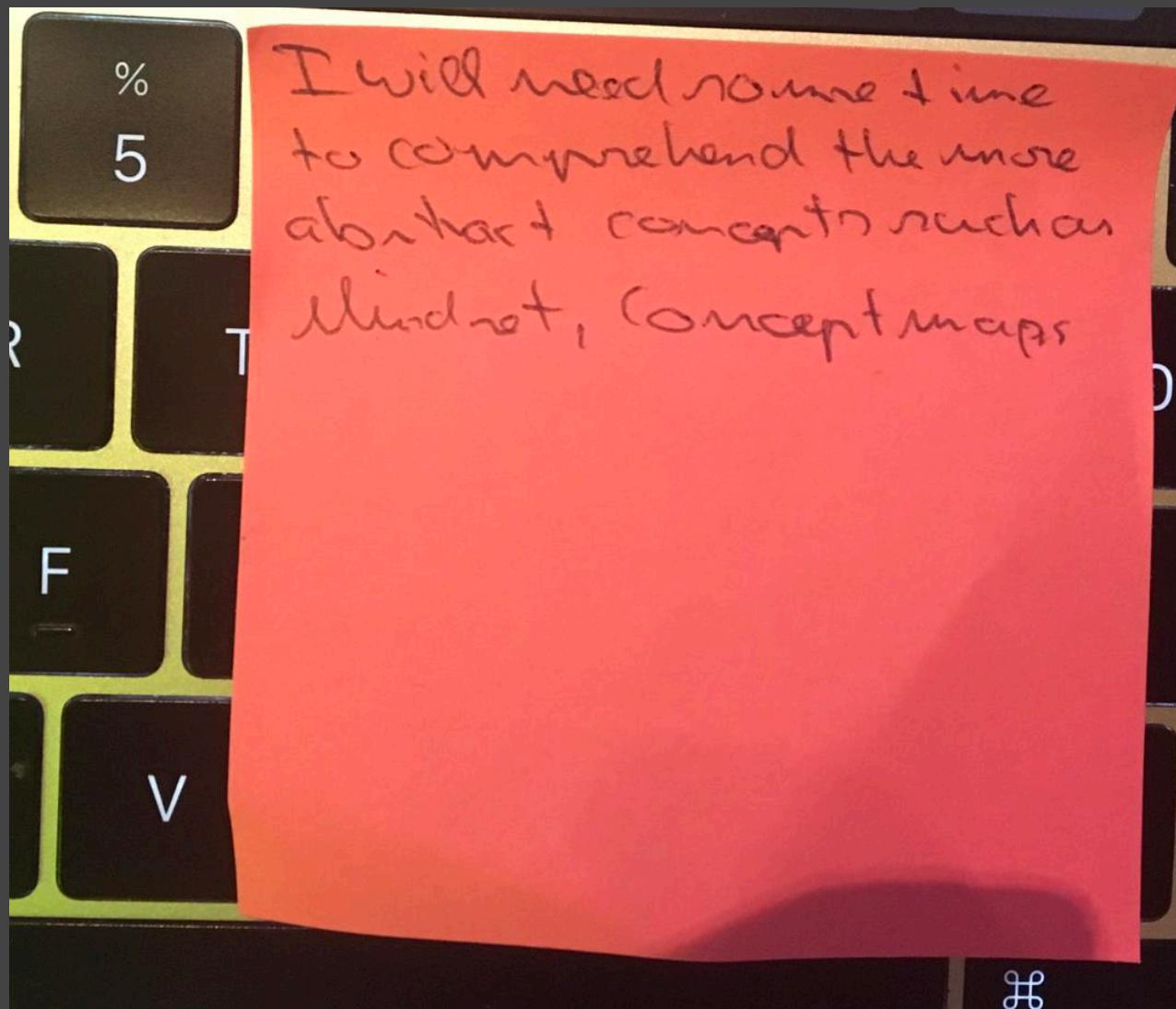
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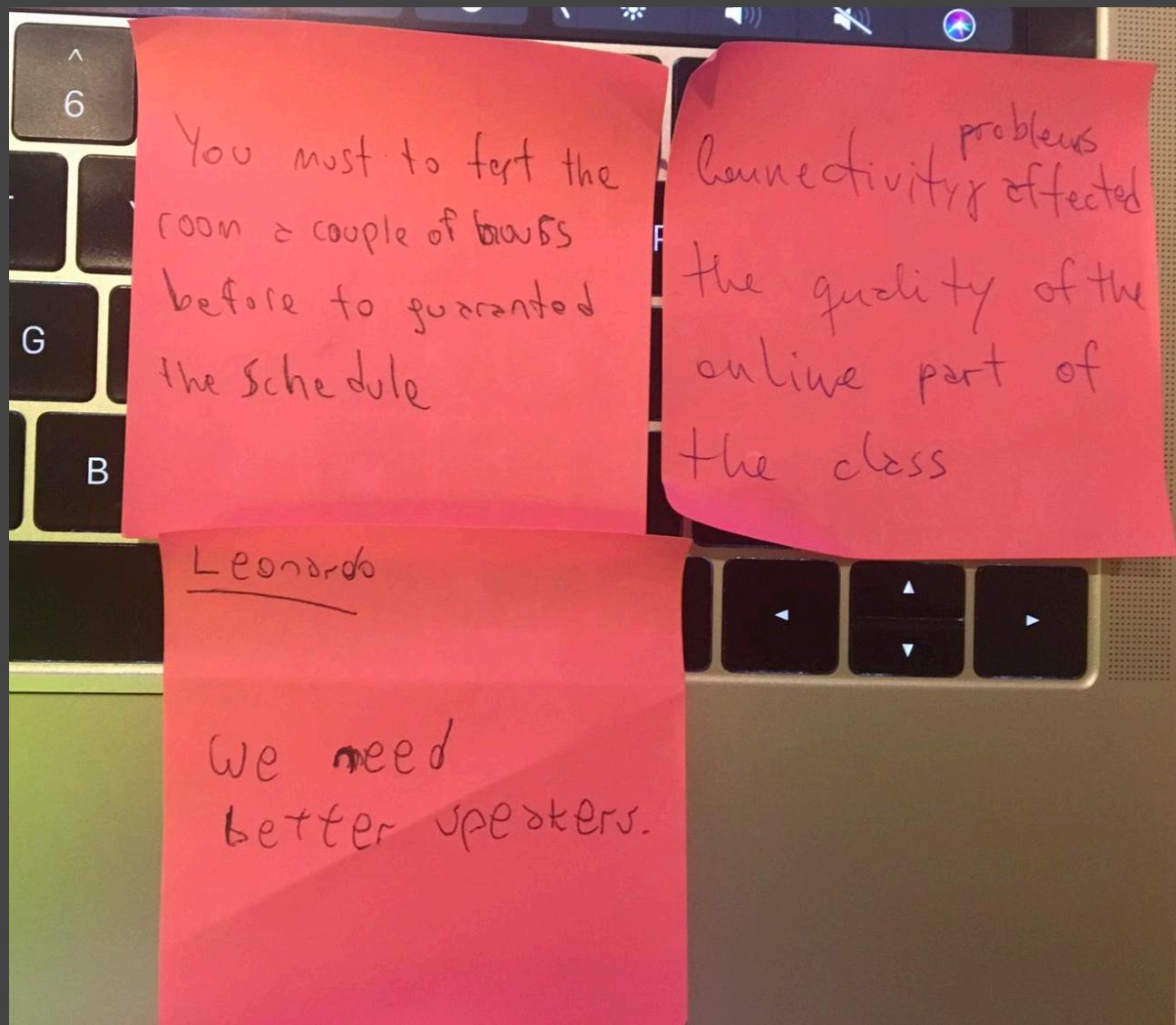
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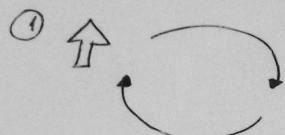


Live Coding is a Skill



<https://unsplash.com/photos/YgOCJz9uGMk>

Live Coding is a Skill



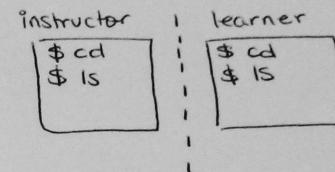
Stand up &
move around

② Slow pace

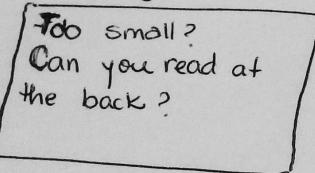


Say out loud what
you are doing while
you do it.

③ Mirror environment.

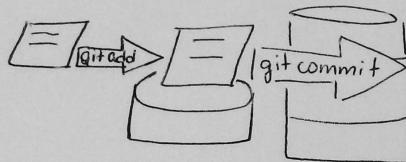


④ Use your screen
wisely



⑤ Use illustrations.

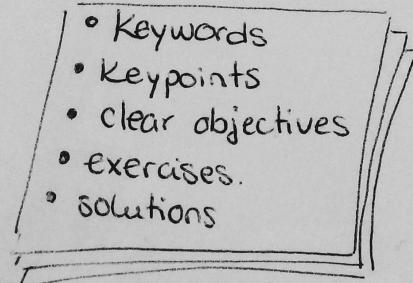
local staging Repository



⑥ Turn off notifications



⑦ Stick to the lesson
material



⑧ leave no learner
behind

Use sticky notes
to gauge progress
and understanding



⑨ Embrace mistakes

ERRORs are
essential to learning

蜜蜂 Learn the art of
debugging

⑩

Have Fun!

Preparing to Teach



Preparing to Teach



Preparing to Teach

Teaching Skills

- Give and receive ‘constructive’ feedback
- Watch others teach

Curriculum Components

- Lesson objective
- Contents
- Exercises

Learners Profile

Think about

- Person's background
- The problems they face
- How can the course help them

See: <https://software-carpentry.org/audience>

Writing Curriculum

- What do we want to do? Vs. What should we do?
- Content objective Vs. Learning objective

Reverse Instructional Design:

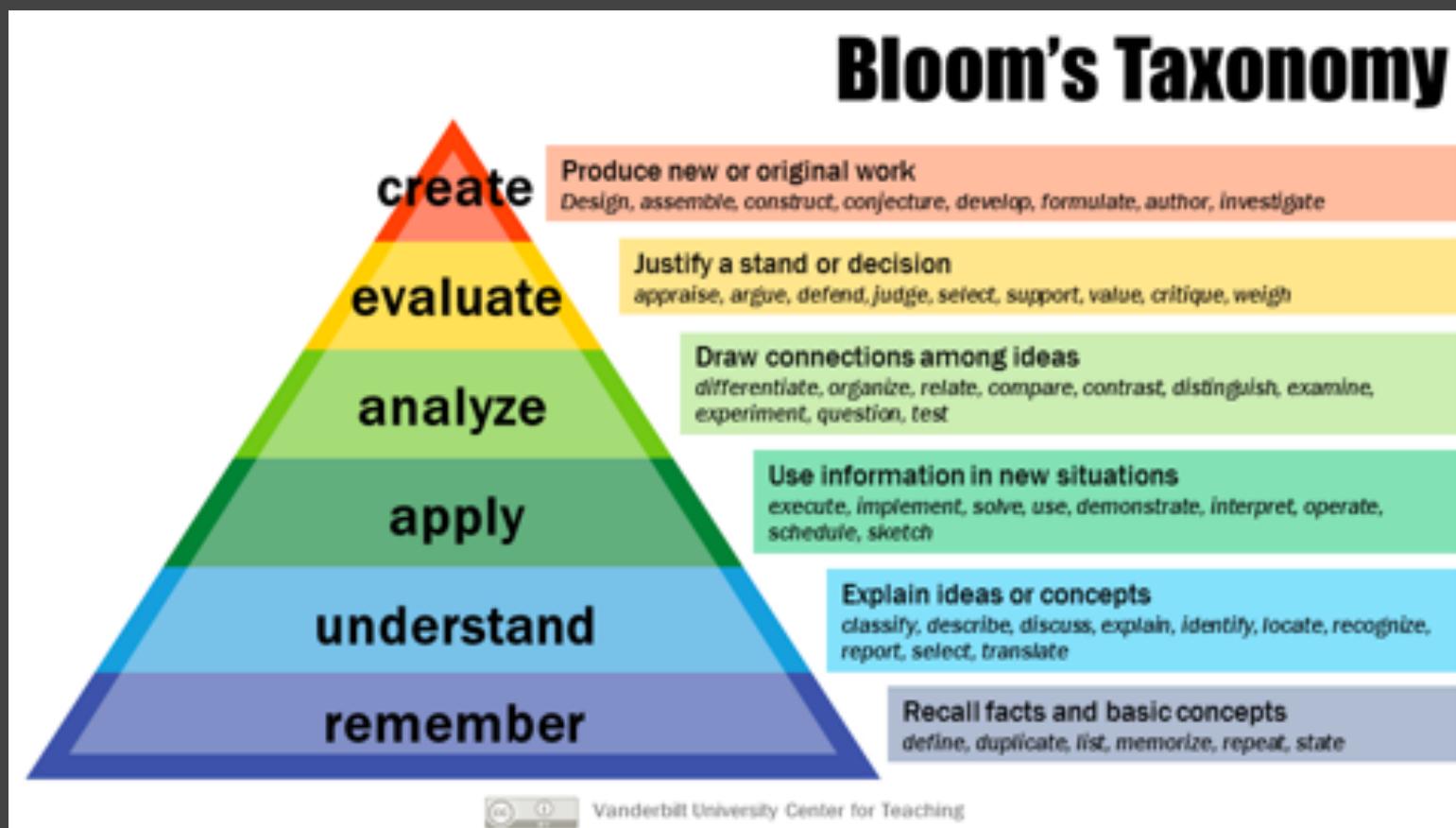
Focus on Learning Objectives

- Determine your learning objectives
- Decide what constitutes evidences that objective has been met
- Design assessment to target that evidences
- Sort assessments in order of increasing complexities

Reverse Instructional Design: *Reviewing Existing Curriculum*

- Review the learning objectives
- Identify important points to check-in with your learners
- Think of some formative assessments to verify objectives
- Review the connecting content (likely problems and answers)

Working with learning Objectives



Evaluate SWC and DC Learning Objectives (10 mins)

Select one learning objective from one of those lessons, then complete the following steps to evaluate it.

- Identify the learning objective verb. How specifically does this verb describe the desired learner outcome?
- Where does this verb fit on Bloom's taxonomy? Do you think this is an appropriate level for your learners?
- In your opinion, does the lesson do an effective job of meeting the stated objective?
- What would the next level on Bloom's taxonomy look like for your learners? How might you be able to help them think ahead to the next level without attempting to get them there during your workshop?

Where are your checkpoints? (10 mins)

- Have a look at your lesson again. Choose a learning objective, and identify where in the lesson that objective should reasonably be achieved. How will you know that that objective has been met for all learners? Will this be clear to them?
- Make a plan for where in your lesson you will use different types of formative assessment to help everyone in the room
- monitor their progress. Keep in mind that formative assessment can take many forms, including multiple choice questions, faded examples, spontaneous questions and calls for sticky notes. Write some notes or thoughts about this > process in the Etherpad for discussion.

Asking Vs. Assessing Specifically

- Have a look at your lesson again. Choose a learning objective, and identify where in the lesson that objective should reasonably be achieved. How will you know that that objective has been met for all learners? Will this be clear to them?
- Make a plan for where in your lesson you will use different types of formative assessment to help everyone in the room
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Group Activity (15 mins)

- With these goals in mind, pair up with a partner to create a MCQ or faded example problems
 - Give each other specific, actionable feedback that follows our 2x2 framework. Use that feedback to make at least one modification to your exercise(s).
- This exercise and discussion should take about 15 minutes.

Managing a Diverse Classroom



Checkout Process



<https://unsplash.com/photos/lM0GHpsjJic>

The Carpentries: How We Operate



Foundational coding and data **science**
skills for researchers worldwide



Basic lab skills for
scientific computing



Skills to work effectively
with **Open Access** data

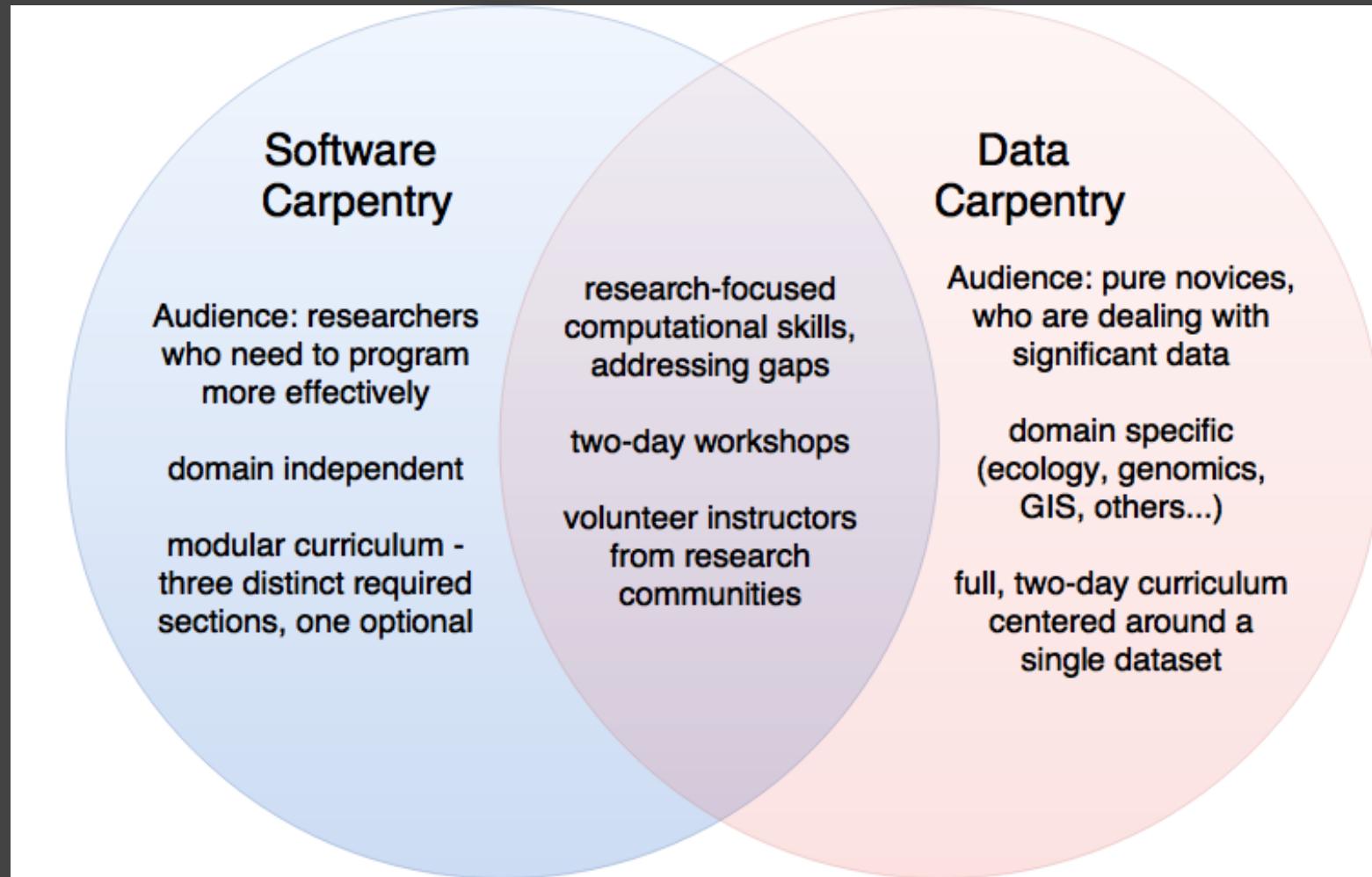


For Library
Professionals



Adapted from the slides provided by Tracy Teal, Director of The Carpentries

The Carpentries: How We Operate



Participating in the Carpentries – What's Your Role? (5 min)

- Take a moment to review member community roles on the Carpentries' community website: <http://static.carpentries.org/community/>
- Working on your own, match up the roles with the descriptions. When you are done, think about the question at the bottom of the worksheet about what roles you might play, and enter your thoughts in the etherpad.

Practice With SWC or DC Infrastructure (10 min)

- Go to the workshop template repository
- <https://github.com/carpentries/workshop-template>
- and follow the directions to create a workshop website using your local location and today's date. Put the link for your workshop website into the Etherpad.

Question and Answer (10 min)

What questions do you have about running and teaching at a workshop? Talk with a partner and enter your questions into the Etherpad.

Workshop Introductions

Putting it Together