Welcome to The Carpentries Etherpad!

This pad is synchronized as you type, so that everyone viewing this page sees the same text. This allows you to collaborate seamlessly on documents.

Use of this service is restricted to members of The Carpentries community; this is not for general purpose use (for that, try https://etherpad.wikimedia.org).

Users are expected to follow our code of conduct: https://docs.carpentries.org/topic_folders/policies/code-of-conduct.html

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Day 2 - Dec 4th

Yesterday's etherpad - https://pad.carpentries.org/2020-12-03-ttt-online-sbdh

Welcome back to day 2!

Sign in:

Name (Pronouns optional), Institution
Please sign in so we can record your attendance.

- Jason Williams (he/him), CSHL, williams@cshl.edu
- Alade Tokuta
- R. N. Uma
- Tonny Sangutei
- Kyle Huff
- Jerry Volcy
- Nannette Napier (she/her/hers), Georgia Gwinnett College
- Luis Torres, GGC
- Marionette Holmes
- A. Nayena Blankson
- Chuang (he/his/him), Morehouse College
- Anupam Nath

X. Welcome Back
https://carpentries.github.io/instructor-training/13-second-welcome/index.html

Questions (5-10 min)
Yesterday we asked you to read some resources about the logistics of teaching and running Carpentries

workshops. Please add your questions about logistics and preparation to the Etherpad. We will answer these questions in the etherpad during your work time and will return to this list later today.

Key Points

- Instructors guide learners to construct the proper big picture (accurate mental model) of the topic rather than focus on details.
- Instructors rely on frequent feedback from learners to monitor their own presentation of the material.
- Instructors introduce a few concepts at a time to avoid cognitive overload.
- The best way to motivate learners? Show them how to do something they can immediately put to use and be enthusiastic about it.
- Teaching is a learned skill.

Question's about the Carpentries
If a institution is not a partnership, I assume they pay the $2500 fee.

If I were to customize a workshop based on our faculty preference, is that required to be under the Carpentries banner? Since clearly, my thinking will be influenced by what I have heard here.

XI. Live Coding is a Skill
https://carpentries.github.io/instructor-training/14-live/index.html

Why Participatory Live Coding?

Up and Down (10 min)
List some advantages and challenges of participatory live coding from both a learner's and an instructor's point of view.

- When students see us making mistakes, it reaffirms to them that it is ok to make mistakes+1
- Great teachable moment to show students that no matter how advanced a programmer is, all make mistakes and show how to address those mistakes.
- Students sometimes ask questions for which I too may not know the answer. So I tell them "let's find out" and we figure it out together by trying the code they are suggesting.
- Advantages would be learners can follow along. The disadvantage is typos, mistakes, and other errors will slow down the lesson and increase stress on the instructor. Although they can be

themselves instructive if handled well.

- Advantage: Students get to follow along. It would empower them and it is less likely they will fall behind. Disadvantage: The instructor could make mistakes .
- Live coding encourages questions; live coding allows the instructor to change the lesson plan in real-time per the classe's needs; live coding allows the class to "see" the instructor's thought process as a problem solution is demonstrated; Live coding allows the instructor to execute multiple "what if" conditions to answer student questions.
- Advantage: Practice ground (instructor) and feedback - Challenge: Hard start for beginners
- An advantage of live coding is that it gives learners an opportunity to keep with the different terminologies and maybe ask if it's something they have not seen before. A disadvantage would be trying to keep up with everyone's learning pace and still covering whatever material was to be covered for the lesson
- Advantage: Can demo how the editing tools work as well as shortcuts. Disadvantage: May be more of a challenge for students to follow along

Disadvantage: code doesn't work; updates needed
sometime could be scary for beginner students with students at various levels of coding

Advantage: It's helpful in highlighting probable mistakes, what-ifs, ...

Compare and Contrast (15 min)
Watch the two live coding videos as a group and then summarize your feedback on both in the Etherpad. Use the 2x2 rubric for feedback we discussed earlier.
In the videos, the bash shell *for* loop is taught, and it is assumed learners are familiar with how to use a variable, the *head* command and the content of the basilisk.dat unicorn.dat files.

poor live coding: https://www.youtube.com/watch?v=bXxBeNkKmJE&feature=youtu.be
Content +

- Instructor introduced lesson
- for an introductory lesson I don't know how the student can follow
- Instructor seems knowledgeable of the topic

Content -

- The instructor seemed too focused on the laptop and not on the students
- No explanation and no context to what he was doing
- He assumed students were following and farmiliar will the subject
- Not clear what the point of all the exercises were: what's the big idea?
- After each exercise, didn't discuss the results
- didn't explain the mistakes he made

Presentation +

- He did not sound clear at all and seeemed to mumble quite a bit
- Instructor was audible

Presentation -
No engaging, looked at laptop and read
Speaking way too fast
Not saying anything while typing
Cannot see the screen; text too small
No eye contact
Phone chimed during presentation
not moving around
Hard to read screen, went fast, never pointed out what he was doing on the screen

good live coding: https://www.youtube.com/watch?v=SkPmwe_WjeY&feature=youtu.be
Content +

- Instructor was knowlegeable and provided context for the lesson
- Showed mistakes

Content -

Presentation +

- Instructor moved at a reasonable pace; explains steps; explains results; explains error; explains how to fix error; took advantage of the error to create a teaching moment on a shortcut; repeated exercise 3 times.
- Font seemed bigger
- Stood up, referred back, pointed directly to it
- Was going at a good speed

Presentation -

- Could speak bit louder
- Could have engaged the students a bit more

Top Ten Tips for Participatory Live Coding in a Workshop

Sticky Notes

Practice Teaching (25 min)
Teach 3 minutes of your chosen lesson episode using live coding to one or two fellow trainees, then swap and watch while the other person(s) live codes for you. Explain in advance to your fellow trainee(s) what you will be teaching and what the learners you teach it to are expected to be familiar with. **Don't record the live coding sessions.** Give each other feedback using the 2x2 rubric we discussed previously and enter the feedback you received in the below.

Key Points

- Live coding forces the instructor to slow down.
- Coding-along gives learners continuous practice and feedback.
- Mistakes made during participatory live coding are valuable learning opportunities.

XII. Preparing to Teach
https://carpentries.github.io/instructor-training/15-lesson-study/index.html

Learner Profiles

Learner Profiles (10 min)
Read Software Carpentry's learner profiles (https://software-carpentry.org/audience/). Note that these example profiles contain more information than you will ever know about a learner; this is a creative exercise in imagining (and empathizing with) the whole people behind the faces. Now, sketch out a profile of someone you might expect to attend your first workshop. Who are they, what problems do they face, and how might this training help them? Be as specific as possible.
Enter your learner profile below.

Primarily two types of people. First will be students who have had no exposure to programming. They can become easily frustrated and can give up easily, or assume coding is too hard.
Patty: Grew up in NC and is 19 years old. She is in the economics department, but is interested in business. She is only using programming to matriculate through the department. She has very little to no interest in programming. She has not taken the first level (required) programming class on campus. She can become easily frustrated when she is not able to follow along and has assumed that coding is hard and tedius.

Dr. Wilson: Dr. Wilson is an outstanding professor. He has been exposed to some level of coding but in a different language. He can therefore pick up relatively quickly on any new language. His interest in coding is to conduct his research. He wants to learn coding, somewhat, but also believes he can employ graduate students to do the work and would like a decent understanding of the new language.
The second will be faculty members. Among the faculty members, there will be novices and professional competents.

Faculty in the behavioral sciences. This would include psychology, business management faculty, etc. An example would be Dr. D. D knows his statistics and has used gui statistical programs in the past. They are looking to get to know R in more detail so that they can consider using it for their analysis as well as learn new, more advanced statistical techniques.
Karla, a students that has basic knowledge on spreadsheets, mainly on business practices, came from the local area high school and it's on her third year pursuing a bachelors in business administration. She wants to graduate and pursuit a masters in business administration after working in marketing for a couple of years. Karla knows that handling data is a skill that employers are looking for in today's work

environment and wants to be able to include it in the resume and be ready to use some of those skills when she lands her first job
Faith is a first year psychology major little to no background in R. She is interested in statistics and data science. She would like to learn how to writing simple scripts, read in data, conduct basic to advanced statistical analyses and basic visualizations for an independent project.
Michele is a faculty member in social sciences, who does research in the area and works with data on social issues.
My learner is a faculty member who has been teaching for 25 years. Her discipline, up until now, hasn't had an important intersection with technology. She now realizes that data science and algorithm literacy is necessary for her students to be competitive. Our learner is a bit uneasy with learning how to program. She didn't enjoy it when she had to take that "useless" Fortran class almost 30 years ago. She is a lifelong learner... just not in coding.

Wendy is an experienced faculty member in Education. She teaches statistics to her students - however, they have used only the calculator so far to do any computation and maybe some excel. She is interested in analyzing bigger data sets and would like to learn R to enable her to do that. However, she is intimidated by the thought of learning a programming language as these were not part of her curriculum when she was a student.

Josh Kyle, a student with learning diability, very passionate with programming but not much background, virtually none in R. Love data science and very much motivated to learn but without much preknowledge of data science. Extremely nice personal characters always helping others whenever he can. A visual learner, somehow slightly behind in Mathematics and logical thinking. Sometimes intimidated by his peers in classrooms. Needs more attention and more encouragment. I would give him more opportunities in classrooms to show his work, and prove him that he is as capable as anyone else, and bring him more confidence.

Nannette: Dr. So And So received their doctoral degree in Business Administration five years ago with a major in Management after a distinguished professional career as an executive. They took the requisite statistical analysis courses in graduate school but do not use these tools on a regular basis. In fact, they do qualitative research and rarely use quantitative analysis. They never took a programming class.

Dr. So is needing to update their curriculum to infuse more technical agility so that students will be more prepared for careers. School of Business industry partners are saying that the courses need more rigor, and there is a push for Data Analytics to be infused throughout the curriculum.

Dr. So is taking the Data Capentries classes to build their own awareness of what these tools can do. Then, with colleagues in their discipline, So will discuss how to update courses. This foundational knowledge can also be used to explore whether industrial tools can be brought into the classroom as well.

Will have a mix of heteregeneous leaners like sarah who is a first semester freshman and has not been exposed to coding, to Fred who does some amount of coding as a requirement for his work or research and Jeanette who is proficient in programming and use of excel as tool in her work but is also interested

in R.

Reverse Instructional Design (and Preparation!)

Working With Learning Objectives

Evaluate Carpentries Learning Objectives (10 min)

Select one learning objective from one of the lessons linked to below and then complete the following steps to evaluate it.

******[INSERT links here]******

- https://librarycarpentry.org/lessons/
- https://datacarpentry.org/lessons/
- https://software-carpentry.org/lessons/

- 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?

Using Formative Assessments

Where are your checkpoints? (10 min)

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 below for discussion.

Objective: Correctly write for loops to repeat simple calculations.
Learners should be able to write a loop for string processing before the "From 1 to N" section of the lesson.
Sample question: count the number of times the first letter occurs in the word

Lesson: Data Cleaning / Working with OpenRefine. Learning objective - Create a project, facets, clustering, split, undo redo. Assestments can go after each section
Lesson: Plotting with ggplot2
Objective: Produce scatter plots using ggplot.

Provide practice opportunities. Ask participant to complete an exercise.

Lesson: how to adress missing values in R
Objective: Students will be able to understand why it is important to make note of missing data values
Lesson with Carpentry - Introduction to R.
Objective - Definte the followig terms as they relate to R: Object, assign

Lesson: Common mistakes in R
Objective: Help students with some good tips (habits) to avoid some common mistakes.
Example: Comparisons in conditional statement or in loops

Objective - Create objects and assign values to them in R.
Have participants create an object and assign it different values
Have participants demonstrates way in which an object was created incorrectly
Carpentry did a excellent formative assignment where they created several scenarios of assigning values to
objects and participants had to guess what those values would be.

Lesson: Basic Queries in Data Management with SQL for Ecologists
Objective: Write and build basic queries.
Learners will have meet this objective when they are able to use the Select and From commands to retrieve specified data from the database

Objective: Write a loop to polulate anArray

Feedback on Your Challenges (Optional, 15 min)
With these goals in mind, pair up with a partner to discuss the MCQ and faded example problems that you wrote yesterday. Give each other specific, actionable feedback that follows our 2x2 framework. Use that feedback to make at least one modification to your exercise(s). Discuss in the Etherpad the change you made and how it will help you get more useful information about your learners.

Key Points

- To teach effectively, you have to know *who* you are teaching.
- Good learning objectives communicate the intended effect of a lesson on its learners.
- A good exercise provides useful guidance to instructors about next steps needed in teaching.

XIII. More Practice Live Coding
https://carpentries.github.io/instructor-training/17-performance/index.html

Round Two (25 min)
First, have a look at the rubric that is given to trainers as a suggested framework for evaluating the online teaching demonstration sessions that are part of instructor checkout: https://carpentries.github.io/instructor-training/demos_rubric/. Does this rubric make sense? Take a moment to think about things you'd like to do differently with your next live coding practice. This is also a good time to ask questions about teaching demonstration.

Next, get back into the same groups you did your live coding with. Take turns re-teaching your chosen live coding session, making sure to incorporate changes based on the feedback you received and any new ideas based on reading the rubric. Give feedback to each other using the rubric this time.

When you are finished, add some thoughts on this process to the Etherpad: What did you change? Did it work better or worse with the change? How might you do it if you were to teach it again?

Key Points

- (Reflective) Practice makes perfect.

XIV. Managing a Diverse Classroom
https://carpentries.github.io/instructor-training/18-management/index.html

What Are the Challenges? (5 min)
What are some of the challenges you might expect when teaching learners with a broad range of expertise? Discuss with a partner and put your thoughts in the Etherpad.

Code of Conduct Violations
https://docs.carpentries.org/topic_folders/policies/index_coc.html

Never Teach Alone: How to Be a Co-Instructor

Teaching Together - Nuts and Bolts
With a partner, imagine that you are planning a workshop together and answer the following questions:

- How would you prepare to teach a workshop together?
- During the workshop, what are some things the assisting instructor can do (or shouldn't do!) to support the main instructor?

As an entire group, discuss what you came up with and then compare to the recommendations below.

Minute Cards Revisited (5 min)
Use your sticky notes to write minute cards as discussed yesterday.

Key Points

- Working with a broad range of learners can be challenging, but there are many ways to keep a classroom happy and motivated.
- Response to a Code-of-Conduct violation at a workshop is subject to instructor discretion, but all violations should be reported to the Carpentries for follow-up.

Minute Cards - https://forms.gle/1Q1Xfkb2Adp1pyKPA

Lunch Break - Resume at 12:35

Back from Lunch? Let us know by sharing something interesting, funny, random about your work setup or type "back" below.

Sarah - Behind my desk I have a window with a couple of stain glass pieces my dad made, in the mornings the light shines through the stain glass and casts pretty light patterns.
Alade - back
Anupam -
Chuang -
Jerry - back
Kyle - Back
Luis - back
Marionette - back
Nannette - back. nothing interesting about my setup :) I am very boring
Nayena - back
R.N. Uma - back
Tonny - back, I'm told the office is pretty plain.
Chuang Peng - back

Question about online teaching? - https://carpentries.org/online-workshop-recommendations/

Alade - Did the online format change the scheduling for the workshop? (i.e number of days, length, etc)
Anupam -
Chuang - how do we address cheating during online learning? In particular, test monitoring
Jerry -
Kyle -
Luis - Volunteers and audience that want to be there should be engaged, but how do we engage students that have to be there?
Marionette -
Nannette -
Nayena - Since there is no travel, are instructors compensated in some way?
R.N. Uma - When we attended the workshop, I was a helper and it was difficult to address everyone's R issues in a timely manner - a few of them gave up. How to address that?
Tonny -

XV. Checkout Process
https://carpentries.github.io/instructor-training/20-checkout/index.html

Application Form

https://amy.carpentries.org/forms/request_training/
Code: 2020-12-03-ttt-online-sbdh

Alade - working on it-done
Anupam - Done

Chuang - done
Jerry -
Kyle -
Luis - done
Marionette - done
Nannette - done
Nayena - done
R.N. Uma - working on it - done
Tonny - working on it

Instructor Checkout

1. Contriubtion

- checkout@carpentries.org

2. Community Discussion Session

- http://pad.carpentries.org/community-discussions

3. Teaching Demo

- https://pad.carpentries.org/teaching-demos

Checking Out Review with Questions & Answers

Questions?

Alade -
Anupam -
Chuang -
Jerry -
Kyle -
Luis -
Marionette -
Nannette -
Nayena -
R.N. Uma -
Tonny -

Take a moment to review member community roles on the Carpentries' communitiy website (http://www.carpentries.org/community/). When you are done, think about what roles you might play, and enter your thoughts in the etherpad.

Alade - Trainer/developer/Afr. Task Force
Anupam - Trainer
Chuang - Lesson developer, curriculum advisor, and trainer.

Jerry - Lesson developer and Trainer. Curious about the (inactive) African Task Force
Kyle - Champion and trainer
Luis -Code of Conduct Committee - Latin American
Marionette - curriculum advisor
Nannette - Champion
Nayena -
R.N. Uma - Lesson Developer and Curriculum Advisor
Tonny - Champion/lesson maintainer/African Task Force

Get Connected (3 min)

Take a couple of minutes to sign up for the Carpentries discussion channels you want to stay involved with.

There are many ways to get connected with the Carpentries community:

- Our websites are:
    - Software Carpentry https://software-carpentry.org
        - Blog https://software-carpentry.org/blog/
    - Data Carpentry http://www.datacarpentry.org
        - Blog http://www.datacarpentry.org/blog/
    - Library Carpentry https://librarycarpentry.org
        - Blog https://librarycarpentry.org/blog/
    - The Carpentries http://carpentries.org/
        - Blog http://carpentries.org/blog
        - Get involved (community overview) https://carpentries.org/community/
- Our lessons are hosted on GitHub; contributions to them and discussion of changes happens via GitHub pull requests and issues, and the lessons are published using GitHub Pages. More details are given below:
    - Data Carpentry on GitHub https://github.com/datacarpentry
    - Software Carpentry on GitHub https://github.com/swcarpentry
    - Library Carpentry on GitHub https://github.com/LibraryCarpentry
- The Carpentries share public discussion lists that host everything from lively discussion on teaching practices to job postings and general announcements:
    - https://carpentries.topicbox.com
- **We publish a joint newsletter.** https://carpentries.org/newsletter/
- Host monthly community calls and weekly instructor discussion sessions:
    - Check out our community calendar https://carpentries.org/community/#community-events
- You can also find us on
    - Twitter:
        - Software Carpentry on Twitter https://twitter.com/swcarpentry
        - Data Carpentry on Twitter https://twitter.com/datacarpentry
        - Library Carpentry on Twitter https://twitter.com/LibCarpentry
        - Carpentries on Twitter https://twitter.com/thecarpentries
    - Slack https://swc-slack-invite.herokuapp.com
    - Gitter https://gitter.im/LibraryCarpentry/Lobby (Library Carpentry)
    - Facebook https://www.facebook.com/carpentries/

Resume at 2:19
Back from break? Share your favorite flavor of ice cream (or non-dairy alternative) below or type "back".

Alade - back
Anupam -
Chuang - anything with additional butter!
Jerry -butter pecan
Kyle - mint chocolate chip but really what ever the kids get (100% Mom answer)
Luis - back - vanilla
Marionette -
Nannette - back - vanilla!
Nayena - vanilla
R.N. Uma - back
Tonny - back
Sarah - Mint chip but I'm a big fan of a variety of flavors.

Practice With Carpentries Infrastructure

If you'd like to join for practice session using the Carpentries workshop tempate with Sarah, add your name and email address here.
R. N. Uma (ruma@nccu.edu)

Nannette Napier, nnapier@ggc.edu
Kyle Huff, khuff@ggc.edu
Alade Tokuta (atokuta@nccu.edu)
Tonny Sangutei, tsangutei@nccu.edu
Chuang Peng, chuang.peng@morehouse.edu
Marionette Holmes, mholmes@spelman.edu

Question and Answer (10 min)

What questions do you have about running and teaching at a workshop? At this time we will also return to discuss questions remaining from the beginning of the day.

Alade -
Anupam - Technical issues
Chuang - Always nervous on setting up the technical part, for example, to use Slack, noticed carpentry uses swcarpentry.slack.com, do I have to set up morehouse.Slack.com?- I'm not quite sure what you mean Chuang. All slack workspaces are SOMETHING.slack.com the carpentries one is swcarpentry.slack.com because it was created before the Carpentries org came back under one umbrella. If you'd like to create a slack workspace for your group you can. I have one for my hub called something like datasciencehub-group.slack.com or something like that for our internal activities. The Carpentries slack workspace is typically instrcutors and not attendees so if you use it for communication in your workshop you should probably setup a separate slack workspace. Let me know if that helps answer your question or if you have follow-ups.
Jerry -
Kyle -

Luis -
Marionette -
Nannette -
Nayena - Best way to get helpers? Anyone here want to be a helper next week?
R.N. Uma -
Tonny -

Your Academic Past (5 min)

Think back to courses or workshops you really liked or didn't like.

- How did those courses start on the first day?
- Were you confident in the instructors abilities?
- Did you feel like they were enthusiastic about the course and invested in you?
- Was it clear what you were going to be learning?
- Were you excited about the material?
- Did you leave that first day thinking the instructor was uninterested, that you weren't the students they wanted to be teaching or you had no idea what the course was supposed to be about?

Alade - A bioinformatics workshop with outstanding researchers in the are. It began with a brief synopsis of the roadmap, a quick demo, their background and the outlay of what is required of the learners. Finally a very brief summary at the end and future work.
Anupam - A bit more organized. But, overall very patient. Demos and Hands ons are always welcome
Chuang - Bioinformatics workshop would be great!
Jerry - Hmm. Many courses stand out as "excellent" or "not so good". Surprisingly, I doesn't seem like the first day made a large impression one way or another. I don't recall many "first days". Maybe the impressions are subconscious?
Kyle - Instructors were organized and started out the session with enthusiasim. The best ones were sessions that I was instrinsically interested in
Luis -Introductions, Instructor explained background and expectations, course structure, overview, showed passion - Liked-
Marionette - The instructors were very engaging and enthusiastic and there was a clear expectation of what we would learn. With the first day, the material followed the expectations that were communicated.
Nannette - -Instructor admitted at the start that they didn't know the material that well and didn't typically teach the content but would try. + Very helpful and patient
Nayena - Instructors were very enthusiastic; used a lot of humor; engaging; clear lesson plans and objectives; but no live coding
R.N. Uma - Alice workshop - instructors were knowledgeable and were able to relate their personal experience and student feedback on using Alice in their introductory programming courses. They also gave a demo of a few of the student projects that were exciting. The instructors were excited to teach that material. It also helped that the workshop was in Las Vegas!
Tonny - A course redesign workshop I attended one time stands out as an example of how not to run one. One of the presenters talked for 4 straight hours without a break, on a warm summer afternoon, after lunch. It goes without saying that most of us don't remember much of what was said, but how brutal it was.

Practice Your Introduction (10-15- min)

Imagine you have completed instructor training and you are about to teach a full lesson around the material you have been practicing teaching today.

1. Write out some notes, covering some of the topics described above:
    2. Introduce yourself effectively
    3. Clarify learning objectives and expectations
    4. Set the tone for the workshop
2. Return to your groups of 2 or 3 and each give 2 minutes of your introduction.
3. After each introduction, provide 2-3 minutes of feedback.

Break - Resume at 3:19
Back from break? Share your favorite icebreak question or type "back

Alade - back
Anupam -
Chuang - back
Jerry -
Kyle - back
Luis -
Marionette - back
Nannette - back
Nayena - fun facts
R.N. Uma - back
Tonny - back
Sarah - Lately, my favorite ice breaker question is "What is something you are looking forward to about winter?" Helps psych me up for the coming cold months. I also really like to hear about what people's workspaces or the view out their window as it gives me a little bit if a different view for a while.

Picking up the Pieces

In small groups or on your own, make a list of all the concepts you've encountered in this training. Your list can include everything from educational/teaching theories to specific in-classroom practices.

Dont use words like Easy
Almost Never take a student's keyboard +1+1
You can't go too slowly+1
mindset and how to encourage an open mindset+1
Blooms taxonomy and remember teaching is a skil, it needs practice
Present errors as a process of learning
Big jump between novice and expert mental model. Carpentries is more about awareness rather than mastery
Avoid using simple, just do this or that...+1+1
Live coding as a big part of instructions+1
Never under-estimate technical challengers
be mindful of using the J word and such

to package information in smaller chunks

concept maps
feedback with minute cards, etc
Motivation/Demotivation+1

mental models

- novice, competent practitioner, expert
- mental model
- formative assessment
- expert awareness gap
- short-term and long-term memory
- cognitive load
- motivation
- demotivation
- error-framing
- life-long learning
- feedback
- lesson study
- Code of Conduct
- concept maps
- Multiple Choice Question (MCQ)
- peer instruction
- going slowly
- “just”
- accessibility
- sticky notes
- one-up, one-down
- pre- and post-workshop surveys
- participatory live coding
- introductions

Organize Your Knowledge

Let’s put the pieces together by creating a visual organization of information.
We suggest doing this in two ways:

1. If you are comfortable with / like concept maps, trying integrating all the topics above into a single concept map.
2. Use the provided handout to organize topics. Here are two examples:
    - Handout One (https://carpentries.github.io/instructor-training/files/handouts/Wrap-Up-doc.pdf, with example content: https://carpentries.github.io/instructor-training/files/handouts/Wrap-Up-doc-example.pdf)
    - Handout Two (https://carpentries.github.io/instructor-training/files/handouts/Carpentries_teaching_practices.pdf)

Work on this on your own. There’s no “right answer” – this is about you building up a mental model, moving from “novice” to “competent practitioner”.

Once you've organized your thoughts, move to the next exercise.

Parting Thoughts

If you didn't think about these issues when organizing your topics in the previous exercise, now consider:

- What is your mental model of teaching?
- Can you identify why each topic above applies to teaching for the Carpentries?

Write "done" next to your name when you've completely the two reflection exercises above.
Alade -
Anupam -
Chuang - done
Jerry - done
Kyle - done
Luis - done
Marionette - done
Nannette - done
Nayena - done
R.N. Uma -
Tonny - Done

Check-in Email

Put a reminder on your calendar now and send me an email in 1 month. In the email let me know…. how you are doing with completing the checkout requirements (no pressure but to check in), any questions you have about checkout or training after a month to think about them, if you've used any of the skills/concepts you learned in this workshop, or otherwise say Hi!

Sarah's email - sarah.stevens@wisc.edu

Minute Cards -https://forms.gle/Kk4rrUooPuWJs9sY6

Post Workshop Surveys (5 min)
Assessment is very important to us! Please complete this five-minute post-workshop survey.
https://www.surveymonkey.com/r/instructor_training_post_survey?workshop_id=2020-12-03-ttt-online-sbdh