

# 8. Motivation and Demotivation

## Carpentries Instructor Training

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## Questions

- Why is **motivation** important?
- How can we create a motivating environment for learners?

## Objectives

- Identify **authentic tasks** and explain why teaching them is important.
- Develop **strategies** to **avoid demotivating** learners.
- Distinguish **praise** based feedback on the type of **mindset** it promotes.

# Motivation Matters

- motivation as important condition for learning
- without being motivated learning is hard or even impossible
- motivation partly influenced by factors beyond instructor's control
- instructor can cultivate motivation
- instructor should avoid demotivating behaviour

## Carpentries Workshops

- most learners come eager to learn
- Carpentries workshop as starting point for self training
- aim: strengthen motivation to continue learning

# How Can Content Influence Motivation?

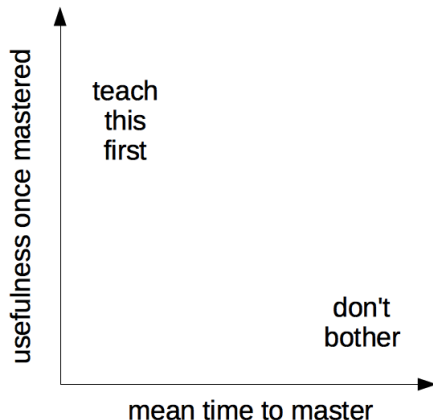
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# Exercise 8.1

## Authentic Tasks: Think, Pair, Share

- 1 **Think** about some task you did this week that uses one or more of the skills we teach, (e.g. wrote a function, bulk downloaded data, built a plot in R, forked a repo) and explain how you would use it (or a simplified version of it) as an exercise or example in class.
- 2 **Pair** up with your neighbor and decide where this exercise fits on a graph of “short/long time to master” and “low/high usefulness”.
- 3 In the class Etherpad, **share** the task and where it fits on the graph. As a group, we will discuss how these relate back to our “teach most immediately useful first” approach.

# How Can You Affect Motivation?

► Exercise 8.2

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### Invite Participation

- Establishing norms for interaction.
- Encouraging learners to learn from each other.
- Acknowledging when learners are confused.



# Exercise 8.2

## Brainstorming Motivational Impacts

Think back to courses you have taken in the past and consider things that an instructor has said or done that you found either **motivating** or **demotivating**. Try to think of one example in each case, and share your example under the appropriate heading in the Etherpad.

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# Mindsets

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**growth mindset** belief that ability can be acquired through effort

## Encourage a Growth Mindset

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- Praising effort or improvement, not performance or ability. [▶ Exercise 8.4](#)

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- Presenting the instructor as a learner
- Praising effort or improvement, not performance or ability. [▶ Exercise 8.4](#)
- Leveraging the power of “Yet”.
  - “I can’t ...”, “I don’t understand ...”

## Exercise 8.3

### Helping Learners Learn From Mistakes

A learner at your workshop asks for your help with an exercise and shows you their attempt at solving it. You see they've made an error that shows they misunderstand something fundamental about the lesson (for example, in the shell lesson, they forgot to put a space between `ls` and the name of the directory they are looking at). What would you say to the learner?

In the Etherpad, describe the error your learner has made and how you would respond.

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# [Exercise 8.4]

## Choosing our Praises

Since we are so used to being praised for our performance, it can be challenging to change the way we praise our learners. Which of these examples of praise do you think are based on performance, effort, or improvement?

- ❶ That's exactly how you do it -- you haven't gotten it right yet, but you've tried two different strategies to solve that problem. Keep it up!
- ❷ You're getting to be really good at that. See how it pays to keep at it?
- ❸ Wow, you did that perfectly without any help. Have you thought about taking more computing classes?
- ❹ That was a hard problem. You didn't get the right answer, but look at what you learned trying to solve it!
- ❺ Look at that - you're a natural!

# First, Do No Harm!

Things you should not do in your workshop:

- Talk contemptuously or with scorn about any tool or practice.
- Dive into complex or detailed technical discussion.
- Pretend to know more than you do.
- Use the *J* word (“just”) or other demotivating words.
- Take over the learner’s keyboard.
- Express surprise at unawareness.

# Not Just Learners

Why does the motivation of the *instructor* matter?

- Learners respond to an instructor's enthusiasm.
- Instructors are learning to teach.
- Carpentries Instructors teach because they want to.



## [Exercise 8.5]

### Why Do You Teach?

We all have a different motivation for teaching, and that is a really good thing! The Carpentries wants instructors with diverse backgrounds because you each bring something unique to our community.

What motivates you to teach? Write a short explanation of what motivates you to teach. Save this as part of your teaching philosophy for future reference.

## Key Points

- A positive learning environment helps people concentrate on learning.
- People learn best when they **see the utility** in what they're learning and **believe it can be accomplished** with reasonable effort.
- Encouraging participation and embracing errors helps learners to stay motivated.