Pair Programming

Why & How

Questions

Advocates for pair programming might say….

Critics of pair programming might say…..

What is it?

Two people
collaborating on *one* computer
to collectively produce *one* program

(*that's it!*)

Why?

- Increased specialization requires more collaboration
  - Different people have different knowledge and strengths
  - Two people problem solving leads to better solutions
- Distributing cognitive load
  - Easier to perform individual functions
  - Easier to catch mistakes and produce high-quality code
- Not tempted to take short-cuts
- Not distracted by email, sms, fb, instagram,...

How? *The ingredients*

- 2 people
- 1 computer
- 1 screen
- 1-or-more keyboards
- 1-or-more mouse

The Roles

- **"DRIVER"**
  - Using keyboard and mouse
  - Managing the editor
- **"NAVIGATOR"**
  - Watching, advising, thinking
  - Responsible for higher-level input to the code
  - Catching errors, bugs, typos
- Talk a lot!

  - Both must understand Why and How

How Do We Talk?

Scenario: I'm navigating. I have a really good idea and I'm having a hard time explaining myself. Can I take the keyboard away from my partner to type it out?

How Do We Talk?

DO: "Can I use the keyboard for a few minutes to show you? / May I?" and return it promptly

How Do We Talk?

Scenario: My pair just made a suggestion and I know their idea won't work. I want to go in another direction.

How Do We Talk?

DON'T: "No, that won't work."

DO: If you have a good grasp of the concepts, explain! Loop them into your thought process and walk them through why you're confident in your idea. Feel free to ask for an instructor's input.

How Do We Talk?

Scenario: My pair just said they don't think my idea will work. They explained themselves well, but I still want to try it.

How Do We Talk?

DO: Time-box it. "Let's spend 10-15 minutes working on my approach, and then we can switch back over to your idea."

How Do We Talk?

Scenario: My partner isn't listening to my ideas and keeps ignoring my input -- I'm feeling bulldozed. What do I do?

How Do We Talk?

DO: Let an instructor know about the situation. We'll gladly give you the tools to feel heard and help mediate difficult pairing dynamics. Pairing is hard and LEARN aims to provide a supportive environment.

How? *The Process*

- Switch roles every 10-20 mins

  - **POMODORO** method

    i.   Decide on the task to be done

    ii. Set timer to 25 minutes

    iii. Work on the task until the timer rings

    iv. Take short break: 3–5 minutes

    v.   Switch roles

http://tomato-timer.com