Creating a Positive Learning Environment: Mindset

Mindset

Fixed Mindset

Abilities mostly innate

Failure is lack of basic abilities

"I must look smart and never look stupid"

Growth Mindset

Abilities can be developed

Requires effort, persistence

"Everyone can get smarter if they work at it"

- With a fixed mindset, everyone does worse
  - "I don't get this first bit, I won't be able to do this"
- Growth mindset promotes perseverance

Exercise 1: What's Your Mindset?

You can learn about your own mindset by taking the official mindset self-assessment.

***Take** the test, which you can find at*

https://mindsetonline.com/testyourmindset/step1.php

***Share** your score in the Googledoc (only if you're comfortable doing so!)*

Note your mindset may differ in different areas!
e.g. artistic ability vs computing skill

Praise Influences Mindset!

- How we praise learners is important

- From Carol Dweck

  - Performance-based: "You did a great job!"
  - Effort-based: "You must have worked very hard"
  - Improvement-based: "You're doing so much better than last time"

Fixed appraisal against 'intrinsic' competence

Aids transition from fixed to growth mindset

Reinforces growth mindset – you can improve with effort

Choosing our Praises

- Used to being praised for our performance!

- Challenging to change how we praise others

- Which of these are examples of performance-based, effort-based, or improvement-based?

1. *"I like the way you tried a couple of different strategies to solve that problem."*
2. *"You're getting really good at that. Keep up the hard work!"*
3. *"You're really talented."*
4. *"That was a hard problem. You didn't get the right answer, but look at how much you learned trying to solve it!"*

"The typos are the pedagogy."

- Emily Jane McTavish

- Avoiding errors is a *barrier* to learning
- "Error framing"
    - Errors are opportunities to learn
    - e.g. LAMP language learning
    - Steel-Johnson study: positive effects on metacognition and self-efficacy
- Errors as natural part of learning – live coding

Exercise 2: 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.

They've made an error that shows they misunderstand something fundamental about the lesson.

e.g. with shell lesson, they forgot to put a space between 'ls' and name of the directory.

What would you say to the learner?

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

Perseverance Predicts Success

- "Grit" essential trait in learning – A. Duckworth
  - Willingness to fail if it gets them closer to goal
  - Evidence of higher degree of success in life
- Grit not innate – can be learnt and instilled:
  1. Sharing experiences of struggle
  2. Promoting perseverance
  3. Sharing passion
  4. Emphasising long-term goals

Habits of Lifelong Learners

- Job market – need to be a lifelong learner
  - "Knowledge work" – requires non-routine problem solving
  - "Deep work" – ability to focus intensely on cognitively demanding tasks
- Lifelong learning arises from growth mindset
- Reframe and emphasise help-seeking behaviour as positive
- Show that as instructors
  - We are lifelong learners
  - We don't know everything!