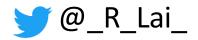


## "Psych students just can't code": CHALLENGE ACCEPTED

Rebecca Lai and Shannon McNee







So why do these gatekeepers, people who have the power (even if just 1% more than myself) to change undergraduate and graduate teaching, say "no to coding"? Why do they think the students in psychology just can't cope?

- Olivia Guest

#### Outline

- Motivations for learning R
- Challenges and Successes
- Moving from Taught to Teaching
- Costs and Benefits



#### Motivations to transition from SPSS to R

 Frustration with point and click nature of SPSS: "what's going on inside the 'black box'?"

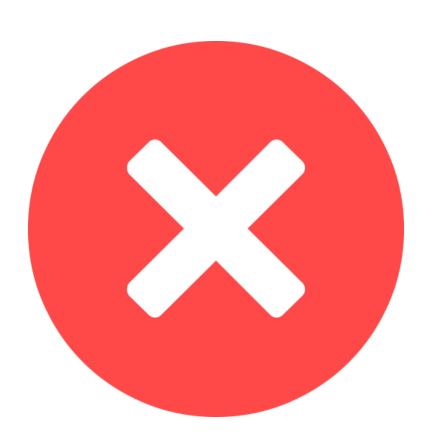
 Desire to challenge the limits of own existing knowledge

Competitive graduate attributes



## Challenges

- Any RED TEXT viewed as criticism rather than support
- Language barrier: "I know what I want to say in English but I don't know how to tell R"
- Googling it
- Legitimate commands, nonsense output



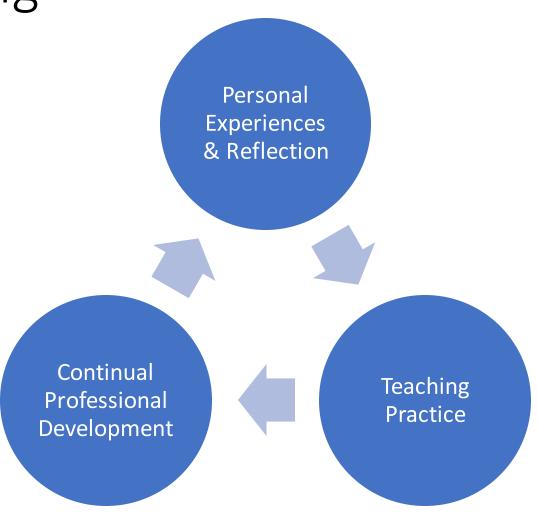
#### Successes

- Writing fully functioning scripts and R Markdown reports (with desired outputs!)
- Producing beautiful, accessible data visualisations
- Sense of ownership and independence
- Empowered to be a part of the future of psychological science



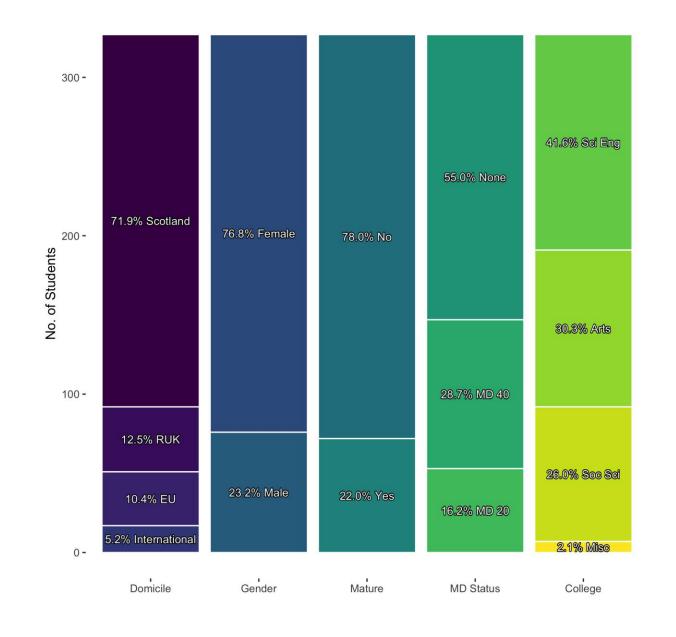
## From taught to "teaching"

- Our experience informing our practice
  - Reflecting on what worked for us
  - Using these in our own practice
- Still learning along the way!
  - Still developing new skills
  - Engaging with pedagogical literature



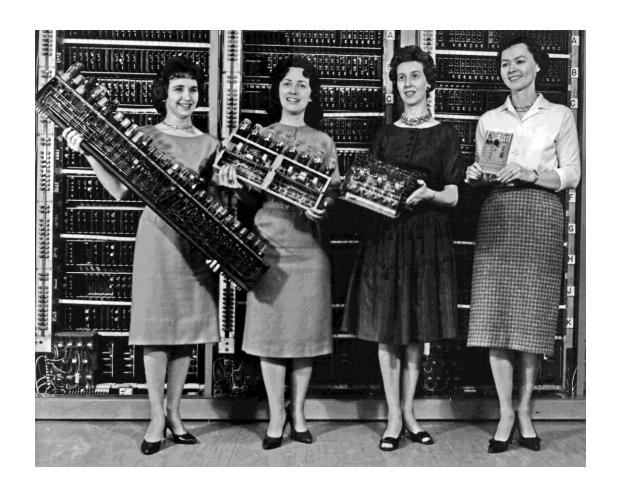
### Not an Easy Task...

- Diverse student population
  - Socialisation/Culture
  - Educational Histories
  - Expected Degree Path
- Tight Scheduling
  - Set amount of material
  - Set amount of time
  - Large number of students



### ... but Very Possible

- Strategies we used ourselves applied to our practice:
  - Reframing the RED text
  - "Talking through" the code
  - Developing search term literacy
  - Making predictions and testing them
- Breaking the perfect, male geek trope
  - Mostly female TAs
  - Being visibly fallible



## Teaching as a Learning Partnership

- Nobody is an expert in all things
- Learning new tools ourselves
- Choosing appropriate tools and level of engagement
- Engaging with pedagogical literature
- Reflection on practice













#### Costs and Benefits

- TAs may need extra support/training
- + Levelling up skills and reputation for all



Olivia Guest | Ολίβια Γκεστ @o\_guest · 24 Nov 2018

Replying to @djnavarro

The argument seems to be, I'm paraphrasing, "psych people can't deal with complex stuff" which really boils down to "I can't teach them complex stuff". Taken at face value the argument is psych researchers are not clever — reality of course is not aligned really with that view.



Q 2 1 2





#### In conclusion

- We were the proof, and are continuing to prove, that you can teach undergraduates to code
- Like any challenge you need to accept it and try before you can overcome it
- The potential benefits outweigh the costs





# Thank you for listening! Questions?

Rebecca Lai and Shannon McNee



@\_R\_Lai\_



@ShannonMcNee2