Code review to enhance research training, collaboration, and communication

Lindsay Peterson
UNSW Sydney
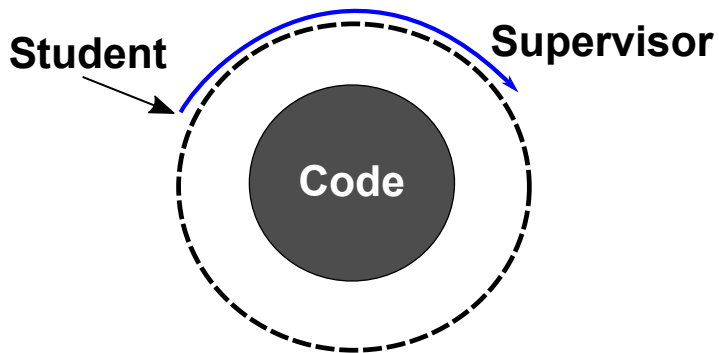lindsay.peterson@unsw.edu.au

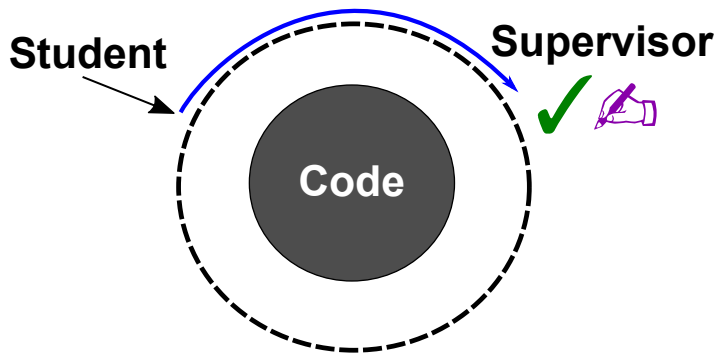Damien Mannion
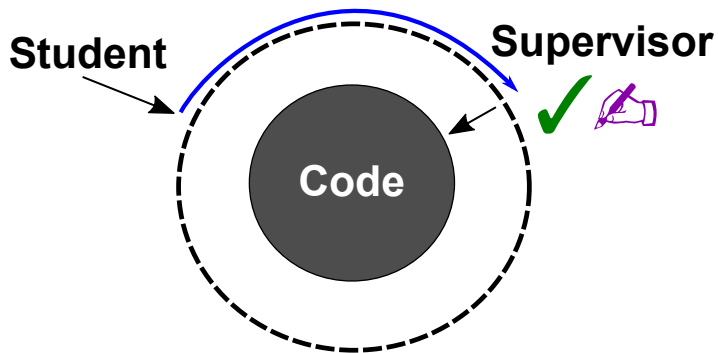UNSW Sydney
d.mannion@unsw.edu.au

Code review for research training

Code review for research training

Code review for research training

Code review for research training

Code review for research training

Benefits for students and supervisors:

- ▶ Promotes student involvement in all areas of research project while supervisor still has oversight.
- ▶ Useful companion for teaching students programming, and both general and lab-specific research practices.
- ▶ Students gradually move from reviewing to authoring code as their programming skills improve.

Code review for research collaboration

Student   **Supervisor**

Code

Collaborator

Code review for research collaboration

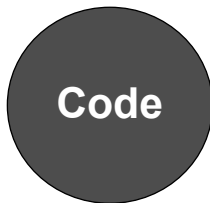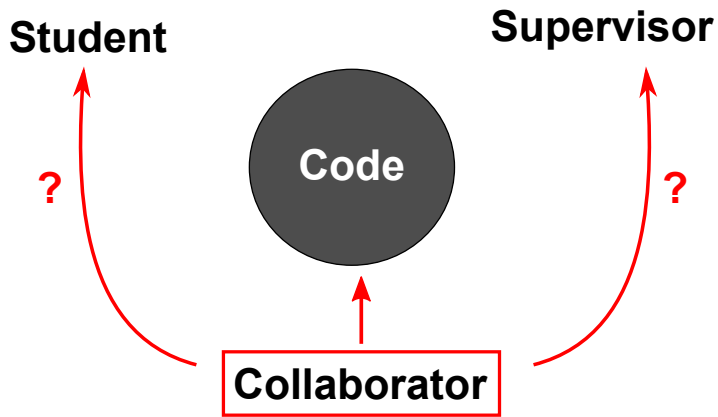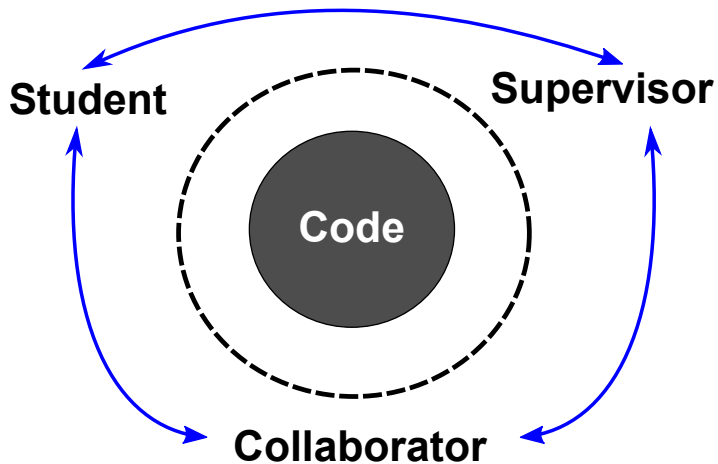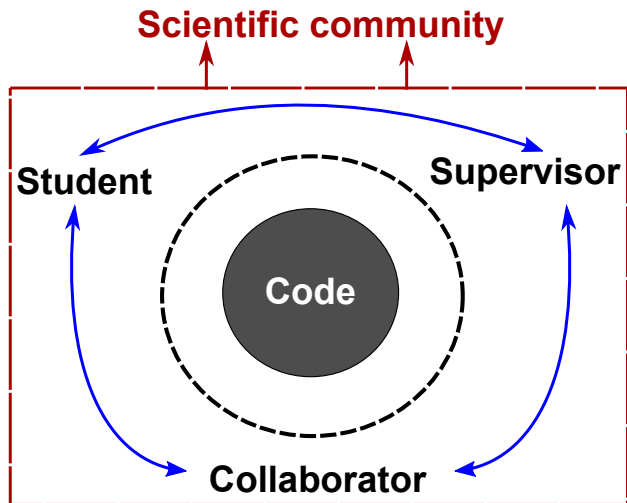**Student**   **Supervisor**

Code

Collaborator

Code review for research collaboration

Code review for research collaboration

Code review for research communication

Code review: research training, collaboration, & communication

The code review process has benefits for students, supervisors, and the wider scientific community:

- ► Facilitates students' learning of research methods and tools.
- ► Supports the sharing knowledge of, and responsibility for, research decisions.
- ► Encourages authors to write readable code, which is important for interpretability by the scientific community.

Code review to enhance research training, collaboration, and communication

Lindsay Peterson
UNSW Sydney
`lindsay.peterson@unsw.edu.au`

Damien Mannion
UNSW Sydney
`d.mannion@unsw.edu.au`