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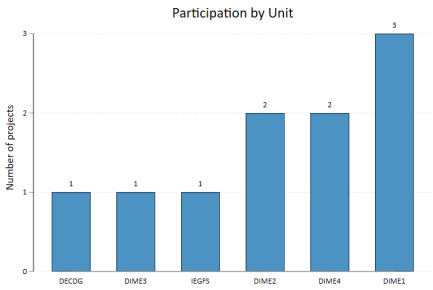
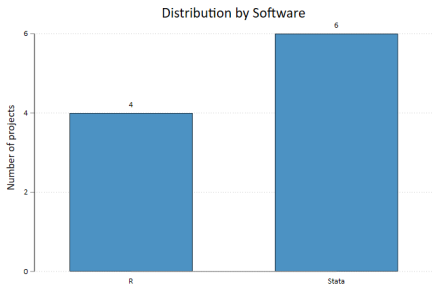
DIME ANALYTICS

DIME Analytics
Peer Code Review Summary
March 2025

A total of **10 research assistants** joined the peer code review held in the weeks of March 10th, 2025, and reviewed code from **10 different projects**. DIME1 was the most represented unit, followed by DIME2 and DIME4. Most projects used Stata as the main coding language.



(a) Participant Units

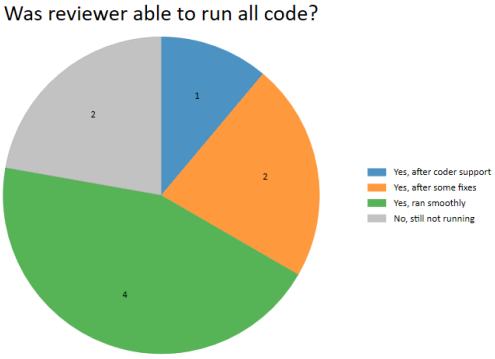


(b) Participant Software Used

Reproducibility

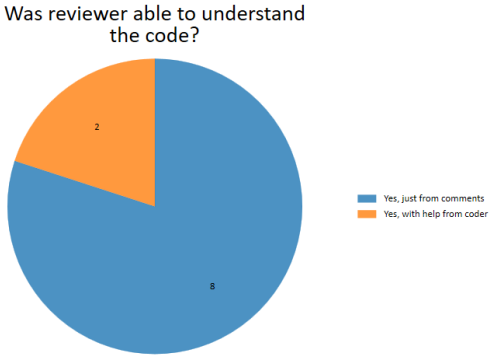
Out of the 10 code packages reviewed, **9 included de-identified data and were evaluated for reproducibility.**

Encouragingly, 80% of these code packages were **reproducible**: the code ran with either minor fixes or no changes at all. However, two packages could not be executed even after attempted fixes, primarily due to software versioning issues.



Ease of Use

80% of reviewers said the code was **easy to understand and well-documented**. Moreover, 70% of reviewers said it would take them **2 days or less** to understand the code well enough to contribute. The code for 70% of projects was rated **easy to maintain**. There were **3 projects** where making adaptations would require changes in multiple places, making them hard to build on.

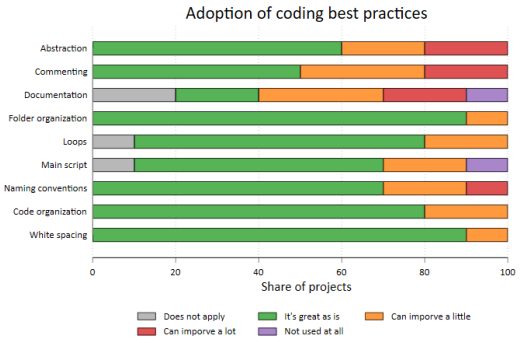


Adoption of Coding Best Practices

The **average number of best practices adopted was 5.9** out of 9. Two out of ten projects implemented 8 of the 9 best practices, while none implemented all of them.
Reviewers identified the most room for improvement in:

- Use of main scripts and documentation
- Abstraction
- Comments throughout the code and naming conventions

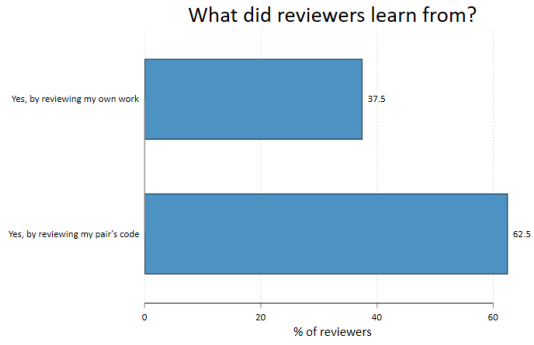
The most widely adopted practices were folder organization and use of white space.



Feedback and Challenges

All participants reported learning something new.
Participants reported learning to:

- Create main scripts
- Organize code files better
- Use new commands and functions
- Write reproducible code



Participants highlighted strong communication with their peers, helpful checklists, and the opportunity to reflect on and improve their coding practices as **key benefits** of the peer code review. **Primary challenges** included time constraints and occasional delays in receiving materials. **Future improvements** will focus on allowing more flexible checklists and clarifying timelines early in the process.

Participant Comments

"Being matched with an RA on the same project helped us have context into each other's code."

"The process is very well set up. The exercise was coordinated smoothly. All the instructions are clear. All the materials that I need were available."

"The prompts in the checklists were very helpful starting points for the review process."