DIME Analytics
Quarterly Peer Code Review Guidance Note
v1.0 - Last updated November 18, 2022

Overview

Every quarter, DIME Analytics organizes the **Peer Code Review**, which is a real-time code and data-quality assurance process. This is a structured opportunity for participants to exchange, run, and provide feedback on each other's code. Apart from increasing reproducibility, transparency and adherence to best practices, it is a great learning opportunity - code writers get to look at their work from a different perspective, and reviewers are exposed to different styles and practices.

The peer code review is designed for scripts that are modular enough to be understood on their own (a reviewer can understand the script without having to refer to other project code files) and are short enough for a reviewer to read through in approximately half a day (depending on complexity). We recommend submitting recently-completed tasks, to allow corrections to be made in real time.

How it works

1. Teams sign-up to participate in the code review each quarter. All DIME Research Assistants working on code are expected to participate, and any Bank staff or consultant who would like to get feedback on their code is welcome to participate.
2. All participants prepare a code package to submit to review, following these guidelines. Submitted code should be **no longer than 1000 lines**.

   - As part of this step, teams should evaluate if they would like to receive comments on **code reproducibility** and **output replicability**.
   - **Note** that in this case, teams should prepare a **de-identified** version of the dataset to include in the submission package.
3. Participants are then paired for review based on preferred statistical software and length of code.
4. The actual peer code review activity takes place over the course of one week, which includes:

   - A **kickoff session** with an overview of the process, and pair assignments.

- A **group work party** with technical support from DIME Analytics. Pairs work together, and answer questions to allow each other to review their submitted code.

5. Reviewers finally submit feedback using this form. They also fill out and submit the following checklists:

   - **Mandatory**: Reviewer Feedback Checklist
   - **Depending on tasks in submitted code:**
     - Cleaning Checklist
     - Construction Checklist
     - Analysis Checklist

What teams receive

- **TTLs** receive individual reports for their projects indicating adherence to best practices, and areas for improvement.

- **Research assistants** receive detailed feedback in the form of the Reviewer Feedback Checklist submitted by their code review partners.

- **DIME Analytics** prepares and shares a summary report for the completed round of peer code review with DIME management, as well as the teams who signed up for the code review round.