



Plan and Design

Three types of group designs have the potential to meet the Department of Education's What Works Clearinghouse (WWC) rigorous standards for research evidence:

- 1. Experimental designs: randomly assigning participants to a treatment and control group.
- 2. Quasi-experimental designs (QED): selecting a similar group of participants to compare to the treatment group.
- **3.** Regression discontinuity designs (RDD): using a continuous scoring rule to assign the program to study participants.

Identify

and Follow

Participants All group designs include participants (e.g., schools, teachers) who are offered the program (treatment group) and those who are not offered the program (comparison group). This stage addresses how to determine the number of participants needed for a group design study, and what to do when people leave the study (attrition).



Collect and Store Data

Data collection involves gathering information such as teacher evaluation ratings, student test results, and other outcomes on which to compare study results. This stage also addresses how to collect data in a consistent way for all participants and keep the data safe from potential abuse.



Analyze Data

Data analysis involves selecting a statistical model that accurately calculates differences in outcomes after program completion. This stage also addresses challenges such as how to account for participants who have missing data, or how to account for potential bias when groups are compared using more than one outcome measure.



Report and Use Findings

Reports need to be written so that others can easily understand findings to inform future work. This stage addresses WWC guidance on how to report results so that studies can be compared to each other. It also explores creative ways in which researchers display their results visually.