QUASI-EXPERIMENTAL DESIGNS
Observing Moderate Evidence

What defines a quasi-experimental study?

Group Formation

Unlike regular experiments, quasi-experiments lack the key feature of randomly selected groups. Quasi-experimental designs (QED) can still help researchers understand the impacts of a policy or program. What makes a QED “quasi” is the fact that instead of randomly assigning subjects to intervention and control groups, they are split by other means. Two groups are formed through various, non-random processes.

Non-equivalent Groups

Groups could be created by factors other than random selection. For instance, comparing volunteers to people who did not volunteer. The key factor is that while there are two groups to compare, they are not randomly selected.

Matching

Researchers may use statistical methods to create a comparison group, matching schools or students on characteristics that are likely related to the outcome of interest. For instance, researchers might create a control group by matching students with similar prior test scores.

Baseline Equivalence

Without random assignment it is always possible that the two groups in a QED that begin before the change being studied took place are not equal to each other. Baseline equivalence is the idea of ensuring that the two groups are similar in every way, and that the selection criteria make it obvious to which group a student or school belongs.

Selection Criteria

It is critical that the process for creating the two groups be consistent and clear. Consistent means it applies to everyone equally, and clear means that the selection criteria make it obvious to which group a student or school belongs.

Baseline Equivalence

Baseline equivalence can help ensure the groups started about the same place and any differences in the outcome could be due to the intervention.

Matching

Matching can help groups with students with similar prior test scores.

Other considerations

Example: Policy Change

In the policy example, if some students or schools were exempted from the policy, or if some schools implemented earlier or later than others, then the assignment of subjects to the groups would not be consistent or clear.

Example: Pre-test

A good example would be a pre-test that takes place before the intervention and is similar to the outcome being measured. If both groups can be established as similar before an intervention occurs and differences are found between the groups afterwards, we can attribute these differences to the intervention.

References:


