Corporation for NATIONAL & COMMUNITY SERVICE

Choosing an Approach:
Levels of Evidence & Validity

EXTERNAL VALIDITY

The extent to which evaluation results, statistically, are applicable to other groups other than those in the research. It refers to how well the results obtained from analyzing a sample of study participants from a population can be generalize to that population.

The strongest basis for applying results obtained from a sample to a population is when the sample is randomly selected from that population. Otherwise, this generalization must be made on extra-statistical ground – that is, on a non-statistical basis.

INTERNAL VALIDITY

The extent to which the observed difference in the average group outcomes (usually program participants versus the control or comparison group members) can be causally attributed to the intervention or program.

Randomized controlled trials allow for high causal attribution because of their ability to trule out alternative explanations (usually unobserved characteristics) other than the intervention as the reason for the observed affect.

Strong Level of Evidence

Evidence from studies whose designs can support causal conclusions (i.e., studies with high internal validity), and studies that in total include enough of the range of participants and settings to support scaling up to the state, regional, or national level (i.e., studies with high external validity).

High External Validity **High Internal Validity**

Examples of strong strong level of evidence:

- More than one well-designed and well-implemented experimental study or well-designed quasi-experimental study that supports the effectiveness of the practice, strategy, or program; or
- One large, well-designed and well-implemented randomized controlled multisite trial that supports the effectiveness of the practice, strategy, or program.

Moderate Level of Evidence

Evidence from studies whose designs can support causal conclusions (i.e., studies with high internal validity), but have limited generalizability (i.e., moderate external validity), or studies with high external validity, but moderate internal validity.

High External Validity
Moderate Internal Validty

Moderate External Validity
High Internal Validty

Examples of moderate level of evidence:

- At least one well-designed and well-implemented experimental or quasi-experimental study supporting the effectiveness of the practice, strategy, or program, with a small sample size or other conditions of implementation or analysis that limit generalizability;
- At least one well-designed and well-implemented experimental or quasi-experimental study that does not demonstrate equivalence between the intervention and comparison groups at program entry, but that has no other major flaws related to internal validity; or
- Correlational research with strong statistical controls for selection bias and for discerning the influence of internal factors.