BetterEvaluation

Understand Causes of outcomes and impacts

Collect and analyze data to answer causal questions about what has produced outcomes and impacts that have been observed.

1. Check the results support causal attribution

How will you assess whether the results are consistent with the theory that the intervention produced them?

Gathering additional data:

Asking Key Informants to Attribute Causality: providing evidence that links participation plausibly with observed changes.

Modus Operandi: drawing on the previous experience of participants and stakeholders to determine what constellation or pattern of effects is typical for an initiative.

Process Tracing: focusing on the use of clues (causal-process observations, CPOs) to adjudicate between alternative possible explanations.

Analysis:

Check Dose-Response Patterns: examining the link between dose and response as part of determining whether the program caused the outcome.

Check Intermediate Outcomes: checking whether all cases that achieved the final impacts achieved the intermediate outcomes.

Check Results Match a Statistical Model: comparing results with a statistical model to determine if the program caused the outcome.

Check Results Match Expert Predictions: making predictions based on program theory or an emerging theory of wider contributors to outcomes and then following up these predictions over time.

Check Timing of Outcomes: checking predicated timing of events with the dates of actual changes and outcomes.

Comparative Case Studies: using a comparative case study to check variation in program implementation.

Qualitative Comparative Analysis: comparing the configurations of different cases to identify the components that produce specific outcomes.

Realist Analysis of Testable Hypotheses: Using a realist program theory (what works for whom in what circumstances through what causal mechanisms?) to identify specific contexts where results would and would not be expected and checking these.

Approaches: the following approaches combine some of the above options together with ruling out possible alternative explanations:

Contribution Analysis, Collaborative Outcomes Reporting, Multiple Lines and Levels of Evidence (MLLE), Rapid Outcomes Assessment. See below for definitions.

2. Compare results to the counterfactual

How will you compare the factual with the counterfactual - what would have happened without the intervention?

Experimental options (or research designs):

Control Group: comparing an untreated research sample against all other groups or samples in the research.

Quasi-experimental options (or research designs):

Difference in Difference (or Double Difference): the before-and-after difference for the group receiving the intervention (where they have not been randomly assigned) is compared to the before-after difference for those who did not.

Instrumental Variables: a method used to estimate the causal effect of an intervention.

Judgemental Matching: a comparison group is created by finding a match for each person or site in the treatment group based on researcher judgements about what variables are important.

Matched Comparisons: participants are each matched with a non-participant on variables that are thought to be relevant. It can be difficult to adequately match on all relevant criteria.

Propensity Scores: statistically creating comparable groups based on an analysis of the factors that influenced people's propensity to participate in the program.

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Sequential Allocation: a treatment group and a comparison group are created by sequential allocation (e.g. every 3rd person on the list).

Statistically Created Counterfactual: developing a statistical model, such as a regression analysis, to estimate what would have happened in the absence of an intervention.

Regression Discontinuity: comparing the outcomes of individuals just below the cut-off point with those just above the cut-off point.

Non-experimental options:

Key Informant: asking experts in these types of programmes or in the community to predict what would have happened in the absence of the intervention.

Logically constructed counterfactual: using the baseline as an estimate of the counterfactual. Process tracing can support this analysis at each step of the theory of change.

Approaches: Randomized Controlled Trial (RCT): creating a control group and comparing this to one or more treatment groups to produce an unbiased estimate of the net effect of the intervention.

3. Investigate possible alternative explanations

How will you investigate alternative explanations?

Force Field Analysis: providing a detailed overview of the variety of forces that may be acting on an organizational change issue.

General Elimination Methodology: this involves identifying alternative explanations and then systematically investigating them to see if they can be ruled out.

Key Informant: asking experts in these types of programmes or in the community to identify other possible explanations and/or to assess whether these explanations can be ruled out.

Process Tracing: ruling out alternative explanatory variables at each step of the theory of change.

Ruling Out Technical Explanations: identifying and investigating possible ways that the results might reflect technical limitations rather than actual causal relationships.

Searching for Disconfirming Evidence/Following Up Exceptions: Treating data that don't fit the expected pattern not as outliers but as potential clues to other causal factors and seeking to explain them.

Statistically Controlling for Extraneous Variables: where an external factor is likely to affect the final outcome, it needs to be taken into account when looking for congruence.

Approaches: these approaches combine ruling out possible alternative explanations with options to check the results support causal attribution.

Contribution Analysis: assessing whether the program is based on a plausible theory of change, whether it was implemented as intended, whether the anticipated chain of results occurred and the extent to which other factors influenced the program's achievements.

Collaborative Outcomes Reporting: mapping existing data against the theory of change, and then using a combination of expert review and community consultation to check for the credibility of the evidence.

Multiple Lines and Levels of Evidence (MLLE): reviewing a wide range of evidence from different sources to identify consistency with the theory of change and to explain any exceptions.

Rapid Outcomes Assessment: assessing and mapping the contribution of a project's actions on a particular change in policy or the policy environment.

Find options (methods), resources and more information on these tasks and approaches online at http://betterevaluation.org/plan/understandcauses