

Pilot impact evaluations with small cohorts

January 2023

Background to the project

The missing type of evidence



Type 1: Narrative	The evaluation provides a narrative and a coherent theory of change to motivate its selection of outreach activities in the context of a coherent outreach strategy
Type 2: Empirical Research	The evaluation collects data on outcomes and impact and reports evidence that those receiving an intervention have better results, though this does not establish any direct causal effect
Type 3: Causality	The evaluation methodology provides evidence of a causal effect of an intervention



We've got quite a lot of this



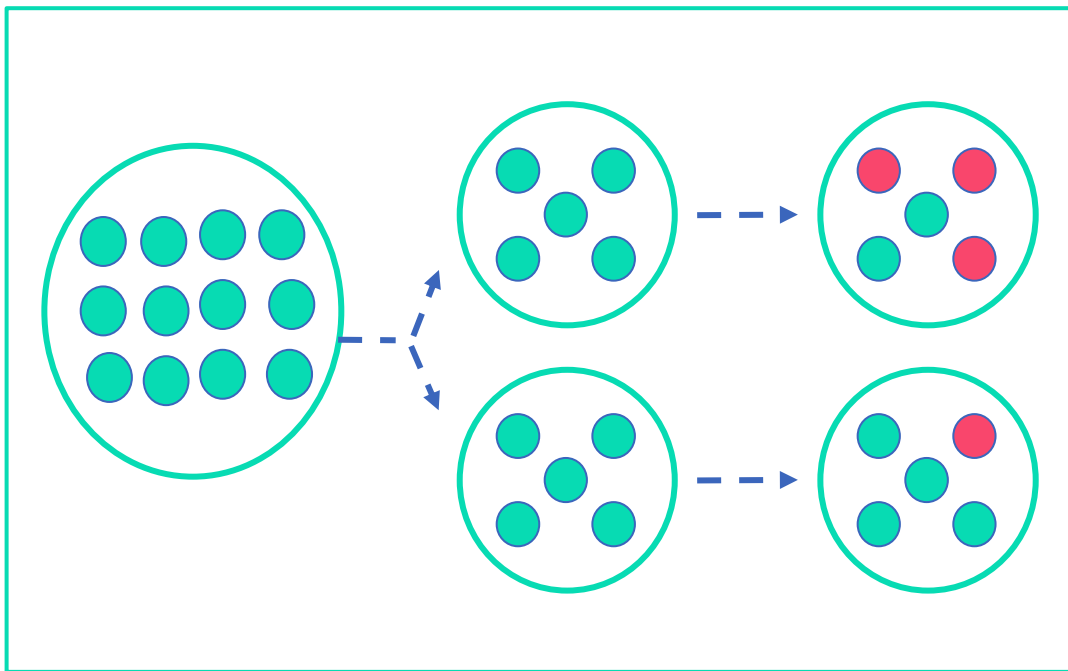
Some of this, and getting better



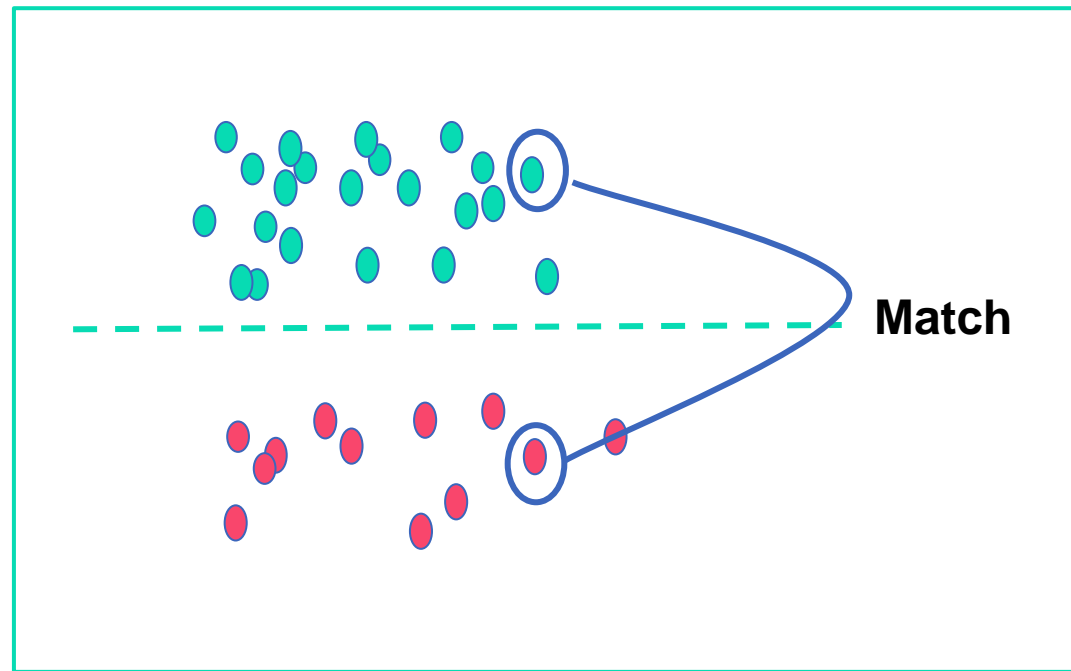
Missing piece of the puzzle

How do we generate causal evidence?

Randomised controlled trials



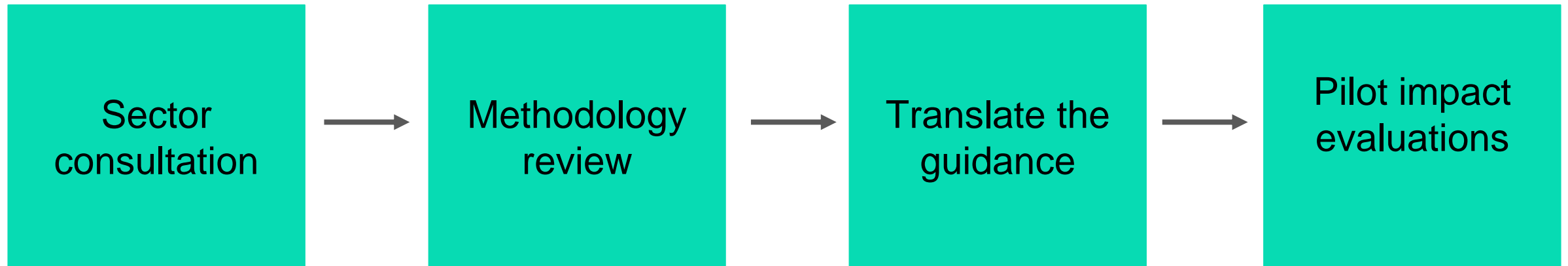
Quasi-experimental designs



Challenges to using RCTs and QEDs

- Small sample sizes (small n)
- Complex multi-intervention programmes
- Cost and resourcing

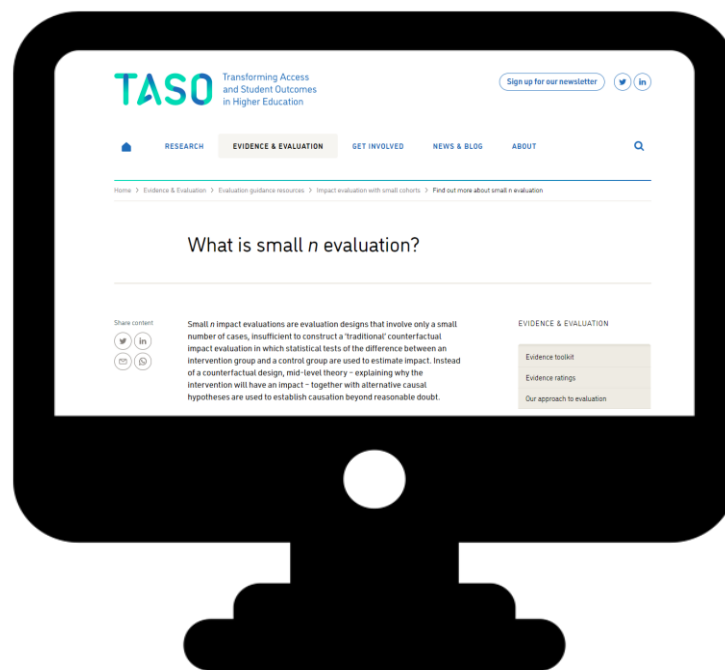
Small n project



Available resources

Impact Evaluation With Small Cohorts: Methodology Guidance

June 2022



CONTRIBUTION ANALYSIS

OVERVIEW

'Contribution analysis explores attribution through assessing the contribution a programme is making to observed results.' Mayne (2008: 1) Four conditions are needed to infer causality in contribution analysis (Befani and Mayne 2014, Mayne 2008):

- **Plausibility:** The programme is based on a reasoned theory of change.
- **Fidelity:** The activities of the programme were implemented.
- **Verified theory of change:** The theory of change is verified by evidence such that the evaluator is confident that the chain of expected results occurred.
- **Accounting for other influencing factors:** Other factors influencing the programme were assessed; either they were shown not to have made a significant contribution or, their relative contribution was recognised.

Theory of change is thus key to undertaking contribution analysis and a specific understanding of causality underpins the analysis. Causation is multiple (multiple factors can be responsible for the outcome) and conjectural (factors combine in complex ways to produce outcomes) (Befani & Mayne 2014).

KEY ELEMENTS OF METHODOLOGY

Mayne (2008) sets out six steps in contribution analysis.

Step 1: Set out the attribution problem to be addressed

Mayne (2008) emphasises the importance of acknowledging the 'problem' of attribution and recognising that there are often legitimate questions about the extent to which a programme has brought about the results observed. It is therefore important to:

- Determine the specific cause-effect question being addressed, ensuring that it is a reasonable question to ask in the context.
- Determine the level of confidence required, by looking at how evaluation findings will be used and the kinds of decisions that will be based on the findings.
- Explore the type of contribution expected, asking questions such as 'what would show that the programme made a difference?' and 'what kind of evidence would funders/decision-makers accept?'
- Determine other key influencing factors that will influence outcomes.
- Assess the plausibility of the expected contribution in relation to the size of the programme and, if it is not plausible, consider whether further work on cause and effect should be pursued.

Step 2: Develop the theory of change and the risks to it

Contribution analysis is based on a well-developed theory of change that makes clear the results chain that links the programme to outcomes. The theory of change should not be overly detailed and can be refined later (Mayne 2008). When determining the expected contribution of the programme Mayne (2008) draws on Montague et al. (2002) to identify three circles of influence:

- **direct control** – where the programme has fairly direct control of the results, typically at the output level;
- **direct influence** – where the programme has a direct influence on the expected results, typically the immediate outcomes and perhaps some intermediate outcomes; and
- **indirect influence** – where the programme has less influence on the expected results due to its lack of direct contact with those involved and/or the significant influence of other factors.

Finding the guidance on the TASO website

Evaluation guidance resources

Browse TASO's free evaluation guidance resources

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TASO recognises that robust and effective evaluation comes with its challenges. Our aim is to provide both practical and theoretical support to help upskill and empower the sector to be better able to overcome these challenges.

Take a look at our range of free evaluation guidance resources below.

Correlation versus causation →

Randomised Controlled Trials (RCTs) –
theory, methods and practice →

Introduction to quasi-experimental designs →

Impact evaluation with small cohorts →

Theory of Change workshop →

Pre and post-test design →

Befani (2020) has developed a **tool to choose appropriate impact evaluation methodologies**. It covers a wide range of 'small *n*' impact methods as well as 'traditional' counterfactual evaluation designs. We strongly recommend that you familiarise yourself with this tool and use it as an aid to decide which small *n* impact evaluation methodology to use.

For all the small *n* methodologies described here, an important starting point is to develop a detailed **Theory of Change**.

Theory of Change →

Realist Evaluation →

Process Tracing →

General Elimination Theory →

Contribution Analysis →

Most Significant Change →

Qualitative Comparative Analysis (QCA) →

Comparative Case Study →

Agent-Based Modelling →



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Contribution Analysis

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Overview

As described by Mayne (2008, p. 1), 'Contribution analysis explores attribution through assessing the contribution a programme is making to observed results.'

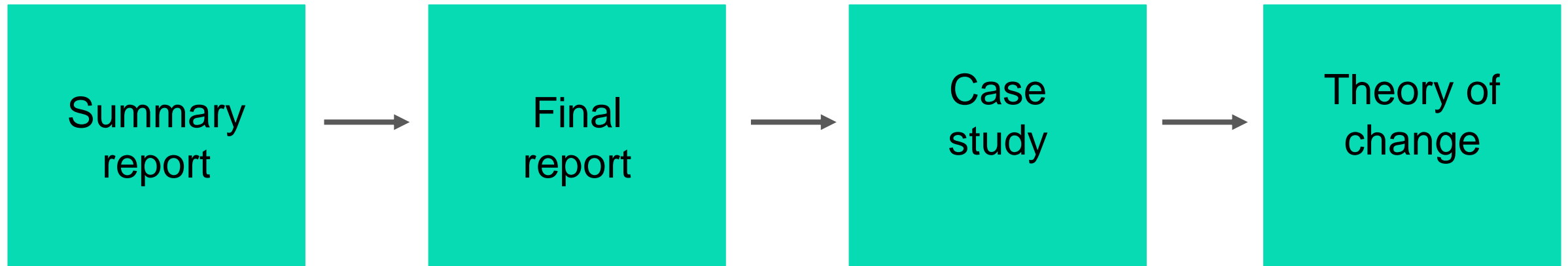
Four conditions are needed to infer causality in Contribution Analysis (Befani and Mayne 2014; Mayne 2008):

- **Plausibility:** The programme is based on a reasoned Theory of Change.
- **Fidelity:** The activities of the programme were implemented.
- **Verified Theory of Change:** The Theory of Change is verified by evidence such that the evaluator is confident that the chain of expected results occurred.

Pilot small n impact evaluations

Provider	Intervention	Small n methodology
HEP 1	Gypsy, Romany, and Traveller WP outreach programme	Realist evaluation
HEP 2	Micro work experience placements	Realist evaluation
HEP 3	Student Colleagues - work experience	Most Significant Change Evaluation / Transformative Evaluation
HEP 4	Jumpstart mature learners outreach programme	Qualitative Comparative Analysis / contribution analysis
HEP 5	Creative Pathways - arts participation outreach programme	Contribution analysis
HEP 6	HE Tutorial Supervisor - learning difficulty/disability	Contribution analysis

There will be a series of outputs per pilot evaluation



Questions?



Discussion points

- Are there additional resources that you would find useful to further ‘translate’ the small n guidance? E.g., a list of recommended trainings for each methodology.
- When TASO launches the outputs from the small n pilots, what would you like the event to cover? E.g.,
 - Reflections from the pilot partners about their experiences of using the methodologies
 - Results of the pilots - e.g., the findings of the impact evaluations
 - Workshop sessions - eg., how to develop a theory of change for complex interventions or small n interventions
 - Anything else?