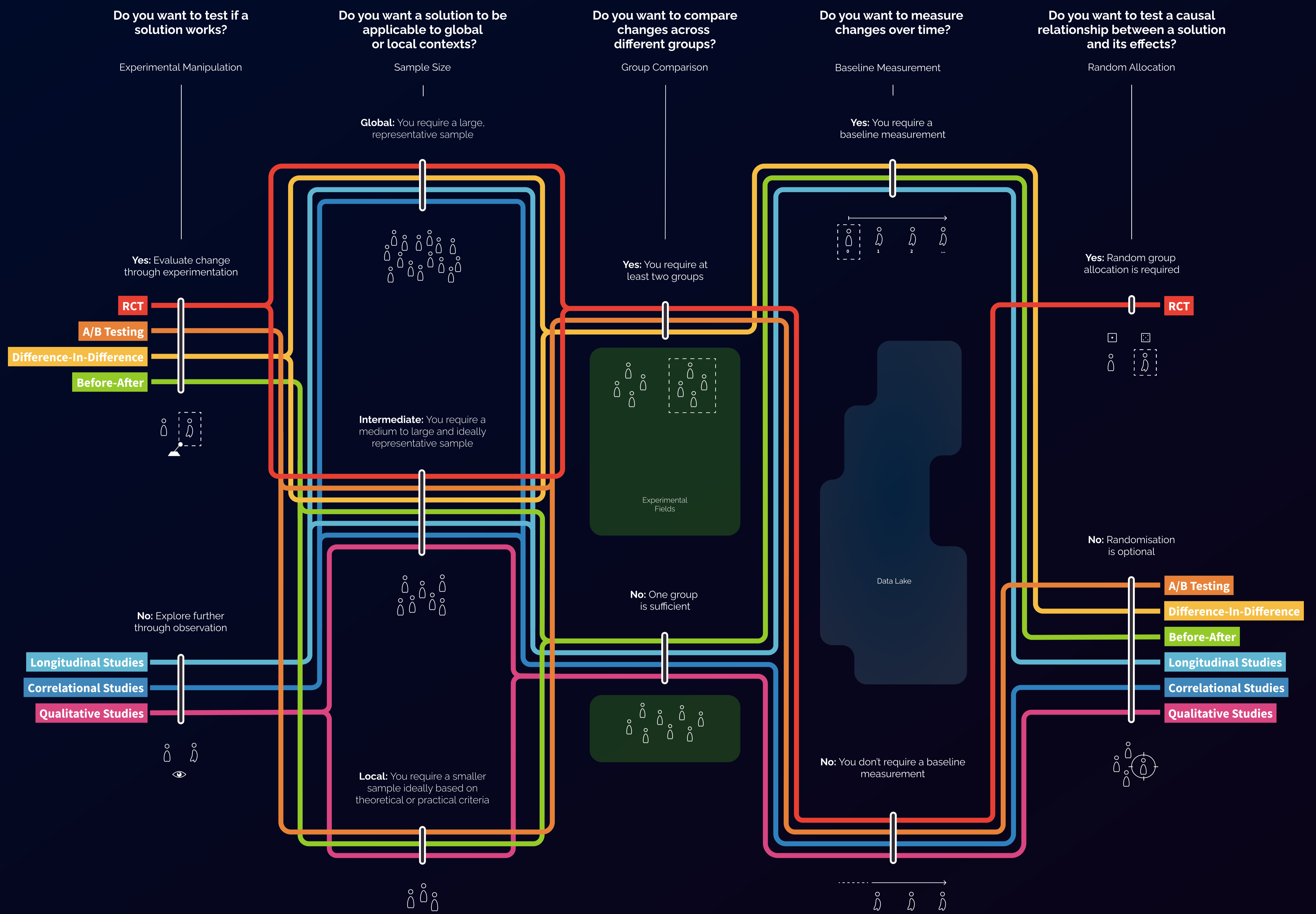


# 7 Routes to Applied Behavioural Science: Experimentation and Observation



## Randomised Controlled Trial (RCT)

"The most reliable Route to test one (or more) behavioural interventions or policy solutions."

### Take Route if your goal is to

- Test the cause-effect relationship between interventions or policy solutions and behaviour

### and your priorities are

- Statistical reliability of the cause-effect relationship testing
- Generalisability\* of this relationship to different/larger populations

### Take Route if you can handle

- Higher research funds, longer time, and experienced personnel
- Not explaining why this cause-effect relationship exists
- Having a subset of the sample without an intervention

## Longitudinal Studies

"The Route to quantitatively and broadly explore behavioural and environmental variables over long periods."

### Take Route if your goal is to

- Explore how the variables involved in behavioural and policy challenges change over time

### and your priorities are

- Generalisability\* of observed changes to different/larger populations
- Statistically assess and quantify changes over time

### Take Route if you can handle

- High costs (research funds, time, and experienced personnel)
- Not testing a cause-effect relationship
- Not explaining why the found relationships exist

## A/B Testing

"The quickest Route to compare the effects of two behavioural interventions or policy solutions."

### Take Route if your goal is to

- Test the relative effect of two interventions or policy solutions on behaviour

### and your priorities are

- Limiting research costs and time
- Testing on the whole sample rather than having a control group

### Take Route if you can handle

- Only testing if two interventions have either similar or different effects without establishing cause-effect relationships
- Not being as generalisable\* as RCTs

## Correlational Studies

"The Route to quantitatively and broadly explore the relationship between behavioural and environmental variables."

### Take Route if your goal is to

- Explore the relationship between the variables involved in behavioural and policy challenges

### and your priorities are

- Generalisability\* of this relationship to different/larger populations
- Statistically assess and quantify relationships between variables

### Take Route if you can handle

- Needing access to a large data bank
- Not testing a cause-effect relationship
- Not explaining why the found relationships exist

## Difference-In-Difference

"The most reliable Route to test one (or more) behavioural interventions or policy solutions over time."

### Take Route if your goal is to

- Test the relationship between interventions or policy solutions and behaviour over time

### and your priorities are

- Generalisability\* of this relationship to different/larger populations
- Statistical reliability of the test of the cause-effect relationship\*\*

### Take Route if you can handle

- Higher research funds, longer time, and experienced personnel
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## Qualitative Studies

"The Route to qualitatively and deeply explore behavioural and environmental variables and to formulate new hypotheses."

### Take Route if your goal is to

- Explore and understand the factors influencing human behaviour, attitudes, motivations

### and your priorities are

- Understanding behaviour, people's perspectives & contextual factors
- Formulate rather than test new hypotheses

### Take Route if you can handle

- Not being able to generalise\* what you find to a broader sample
- Not testing a cause-effect relationship
- Being influenced by your own bias, perception, preconception

## Before-After

"The quickest Route to test the effects of a behavioural intervention or policy solution over time."

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- Test the effect of one intervention or policy solution on behaviour over time

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- Only testing if the effect of one intervention changes over time without establishing a cause-effect relationship
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### \*A note on generalisability:

To ensure meaningful and applicable results that can be generalised to different populations and contexts, when designing an experiment it is important to consider

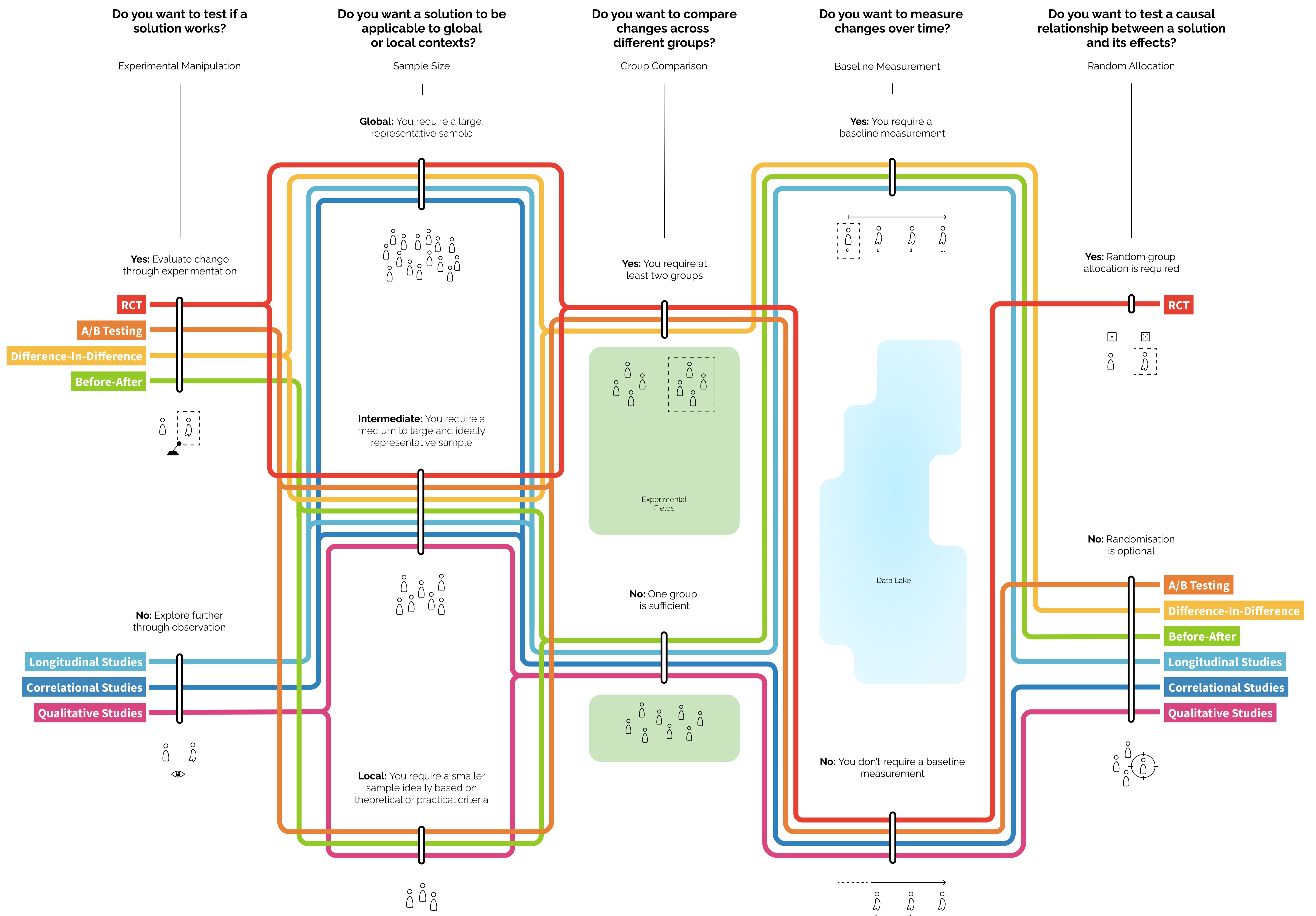
- the ability to exclude confounding external factors
- the sample size (bigger-more generalisable)
- the expected effect size (higher-smaller sample needed)

\*\*A cause-effect relationship can only be inferred with randomisation.

Other things to consider are the sampling method, the type of randomisation, the variability of participants' characteristics, the context and setting of the study, and temporal factors.

For more information on applied behavioural science, experimental approaches and on reference projects in organisations, please visit [affective-advisory.com](http://affective-advisory.com)

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