



Developing survey-based evaluation projects, processes

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**Get started on
quantitative
evaluation
design**

This presentation addresses how you:

1. Ensure the outcomes you're interested in evaluating are measurable.
2. Develop a sound evaluation question.





Context:

General quality of quantitative evaluation in informal learning and public engagement is poor (be careful 'borrowing'!)



Distinction between activity/output and intended outcomes

For outcomes, think about, ‘How might the person who attends the activity be different at the end of the experience?’. How will they have changed?

(e.g. improved confidence in discussing art)

- ***Outputs*** - direct products of program activities and may include types, levels and targets of services to be delivered by the program.
- ***Outcomes*** – specific changes in program participants’ behaviors, knowledge, skills, status and level of functioning.

Activity	Delivery Methods	Immediate Responses	Intended Outcomes of Specific Program	Contribution to Institution-level Impact Goals	Supporting Evidence	Contrary Evidence
[Describe a single component of the larger program]	[How is this activity delivered using particular objects, techniques, etc. that may be employed across multiple activities?]	This activity will generate the following [immediate responses, e.g. pupil behaviors, feelings or thoughts] during the program delivery	<p>This activity will lead to change or strengthening in [aspects of knowledge, skills, behavior, etc.]</p> <p>OR</p> <p>This activity will reduce the prevalence of a problematic idea, behavior, etc.</p>	[This activity contributes to] X, Y and Z institution / project-wide impact		

Intended Outcomes need to be Measurable

- The evaluation process begins with a concept / idea that there is an interest in measuring or observing. (e.g. 'learning')



The Evaluation Process: 1st steps

- Process of ensuring that intended outcomes are spelled out in concrete, measurable variables is very important.
- Easier said than done.
- Define concepts by what they 'do'.
 - How would you know that a particular kind of change has happened?
 - Think about what you would observe if the outcome was being realised in practice.



Evaluation design

- ▶ Your evaluation design is your road map to keep you on a feasible and appropriate path.
- ▶ It is the plan you develop to identify the methods and procedures you'll use throughout your evaluation project.
- ▶ It will help you anticipate and navigate risks and uncertainties that arise.

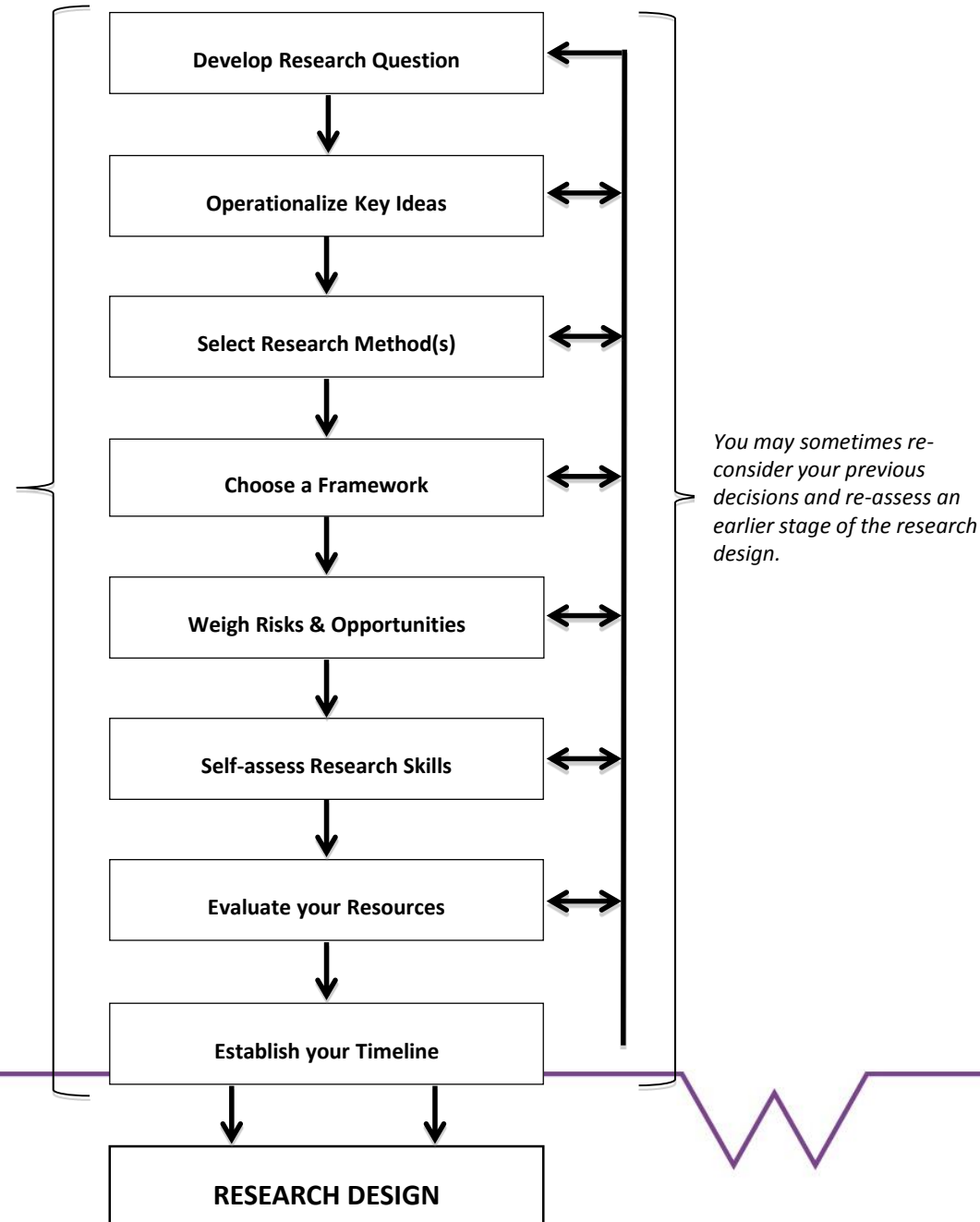


Figure 1.1 Developing your research design

Get started on evaluation design

- You'll need to match the evaluation goals that motivate your project with methods for meeting those goals.
- Choose what kind of data to collect, from whom, in what setting and with which methods.

Each decision you make in the research design affects your options



You may sometimes re-consider your previous decisions and re-assess an earlier stage of the research design.

Get started on evaluation design

- You are likely to need to adjust your evaluation design as you go along to:
 - Accommodate new information
 - Address obstacles to your initial plans
 - Re-think some of your assumptions.
- It is essential that you document and justify the decisions you make along the way: It's easy to forget!



Your evaluation design will evolve over time

- ▶ You are unlikely to quickly generate a robust evaluation design that requires little future modification on the first attempt.
- ▶ Aim to start with a solid – but not perfect – evaluation question.
 - Then, as you move through the evaluation and encounter barriers or opportunities, you can double-back and adjust your question or other aspects of your evaluation design.
- ▶ Your evaluation design is only truly complete when you've completed the evaluation.
- ▶ However, quantitative evaluation requires a strong emphasis on advance planning.



Develop your evaluation question

Consider the following points when crafting your evaluation question:

- ▶ *What are you looking to find out?*
- ▶ *What are your key explanatory and outcome variables?*
- ▶ *What information do you need to answer your question?*
- ▶ *Will it be feasible to gather the data required to answer your question in the time you have available?*
 - *If 'no', you probably need to narrow or change your focus.*
- ▶ *Is your question too broad, possibly leading you into an impossibly open-ended evaluation?*
 - *It is nearly impossible to have an evaluation question that is too focused!*





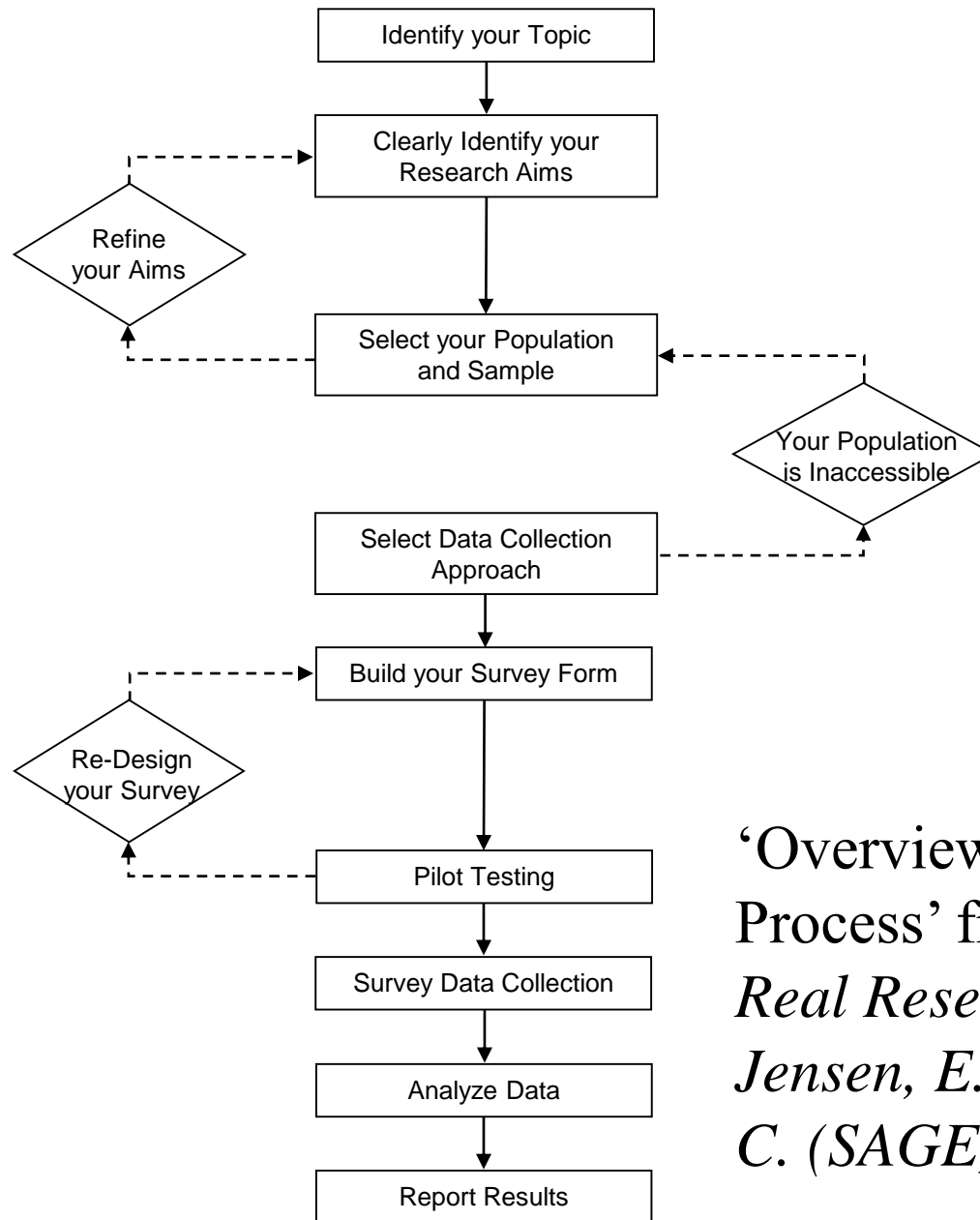
THE SURVEY DESIGN PROCESS



The Survey Design Process

- ▶ The survey design process requires adjustment due to:
 - Available time and resources.
 - The feasibility of your ideal sample size.
 - The changing focus of your research question.
 - The need for efficiency during the survey process.
- ▶ Process involves a compromise of what you want to do versus what you have access to.





‘Overview of Survey Process’ from *Doing Real Research* by Jensen, E. and Laurie, C. (SAGE, 2016).

The cycle of survey design

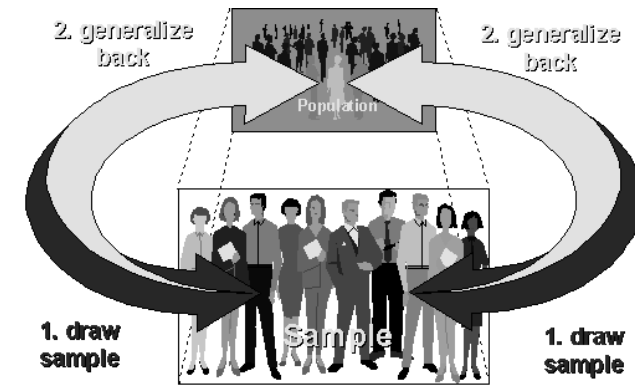
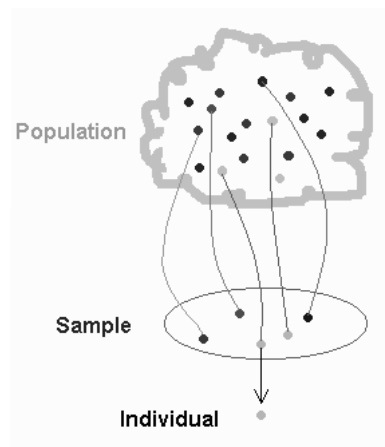
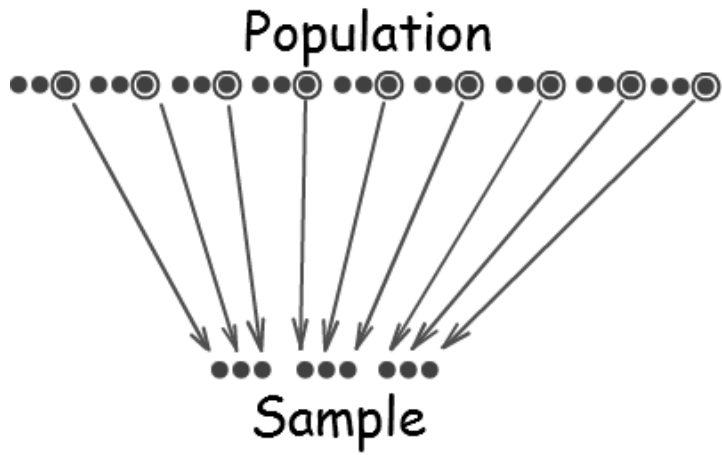
- ▶ Survey process involves a cycle of drafting questions, testing them and revising them.
- ▶ You should always allow enough time for this cycle of pilot testing and redrafting.
- ▶ Could go on indefinitely but time restraints mean at some point you must make a judgment about when a survey design is 'good enough'.



Think ahead

- ▶ Even during data collection you should be thinking about your data analysis:
 - Are you restrained by time limits/resources?
 - Do you have the skills to analyse quantitative/qualitative data?
 - Will you have enough time to analyse all the data from your sample?
- ▶ If you plan a few steps ahead you are less likely to run into problems and make mistakes.





INTRODUCTION TO SAMPLING

Sampling

- Most of the time it is too difficult or time consuming to collect data from every example of the thing that we are interested in (i.e. the 'population').
- So we usually study just a sample of the cases that we are interested in.
- When a sample is representative we can make statements / claims about the population based on the sample.



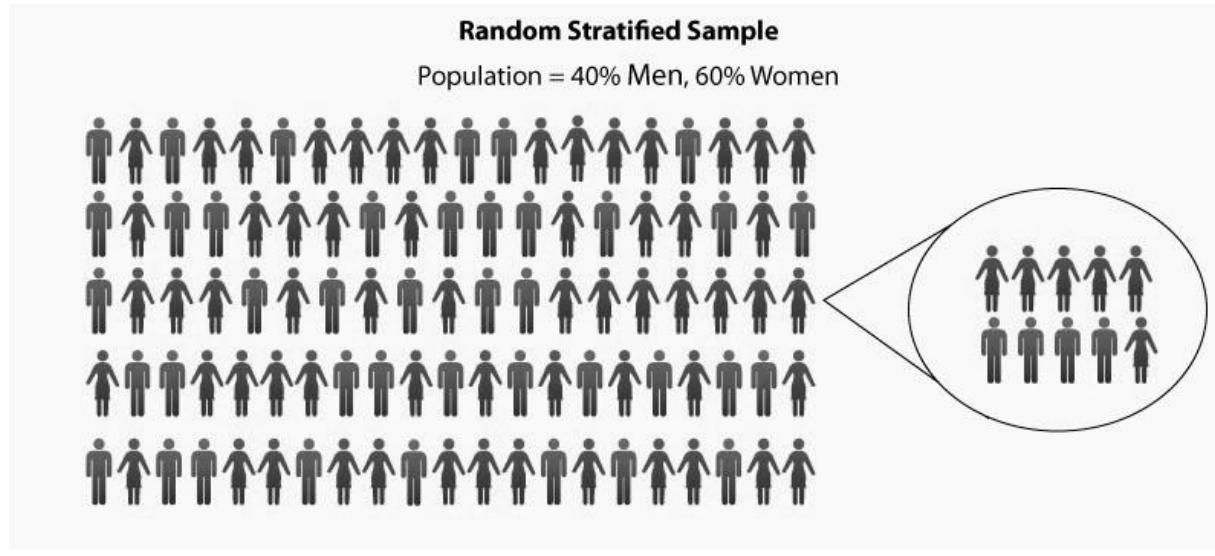
What is Sampling?

- ▶ Although possible, it is not often that the whole population of interest will be researched:
 - This is normally too difficult or time consuming.
- ▶ Instead, we study a sample of the cases that we are interested in.



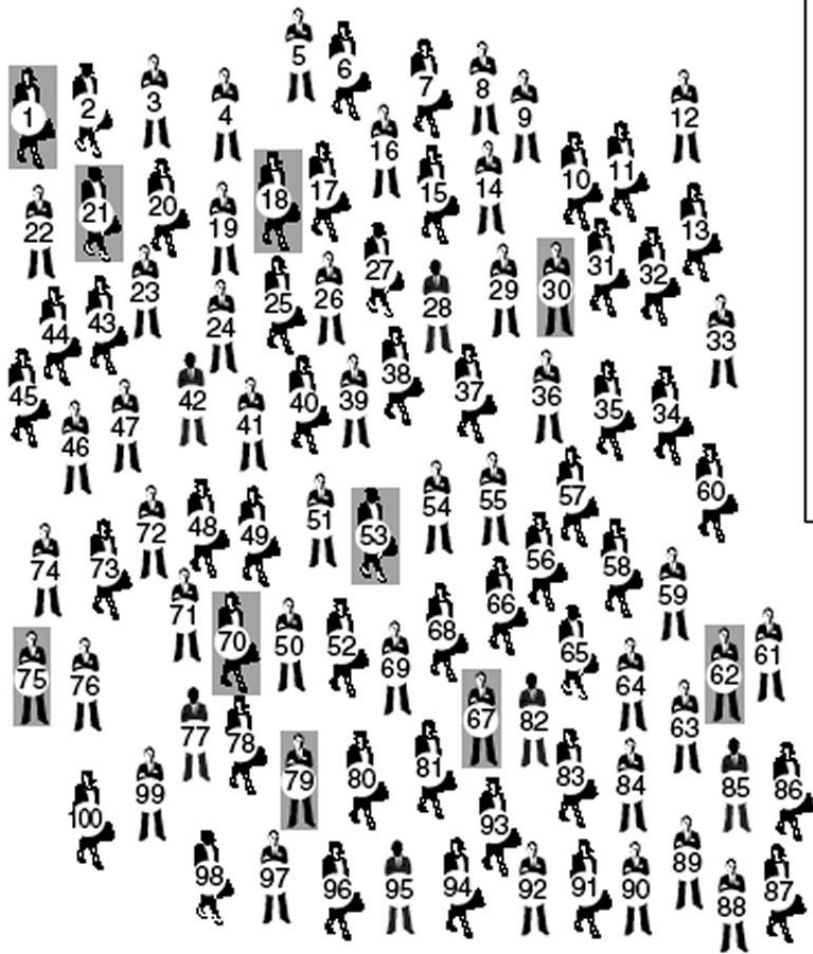
What is Sampling?

- ▶ It is important that your sample is representative of the target population.
- ▶ If representative, we can make generalisations about the population based on the sample.



Representative Samples

- ▶ Representative: the sample should accurately reflect the whole population of interest.
- ▶ Should ensure every member of the population has an equal chance of being included in the sample.
- ▶ The central principle here is random selection.
- ▶ There are various types of random sampling:
 - Simple Random Sampling
 - Stratified Random Sampling
 - Systematic Random Sampling.
 - Cluster Random Sampling.



Appendix B
Table of Random Numbers

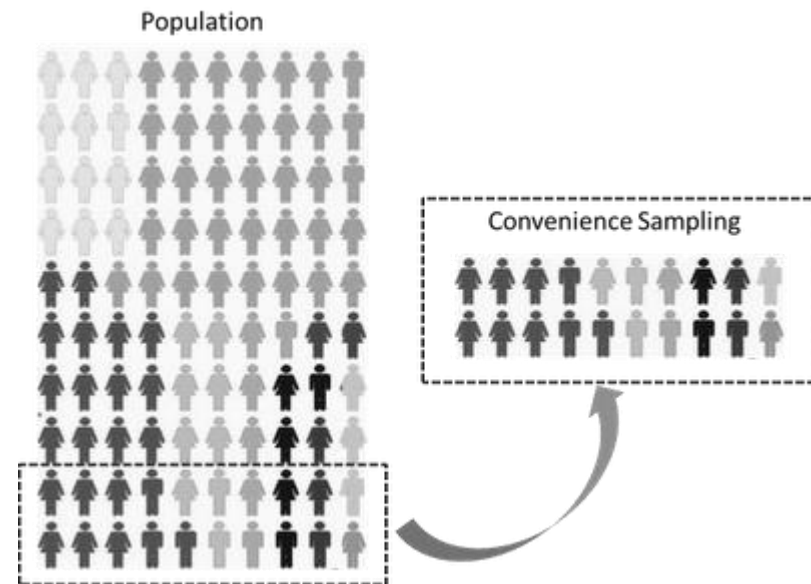
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22368	46573	25595
24130	48360	22527
42167	93093	06243
37570	39975	81837
77921	06907	11008
99562	72905	56420
96301	91977	05463
89579	14342	63661
85475	36857	53342
28918	69578	88231
63553	40961	48235
09429	93969	52636

↓

The sample	
30	67
70	21
62	01
79	75
18	53

Non-Random Sampling

- ▶ Types of Non-Probability Sample:
 - Convenience sampling
 - Snowball sampling
 - Quota sampling
- ▶ Non-probability samples do not involve Equal Probability of Selection:
 - Cannot make accurate generalisations.



Gathering data on-site

- ▶ **Gathering representative feedback:**
 - Comment cards left on a table are problematic as it often yields a small, self-selecting (non-representative sample)
 - TRY INSTEAD → Using brief data collection on site, collecting email address to send follow-up online form.





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