



Measurement for Change

Slide Deck 5:

Preparing and Evaluating Metrics of Assessment



*This slide deck is intended to provide guidance over how to prepare
your tools for use*

and

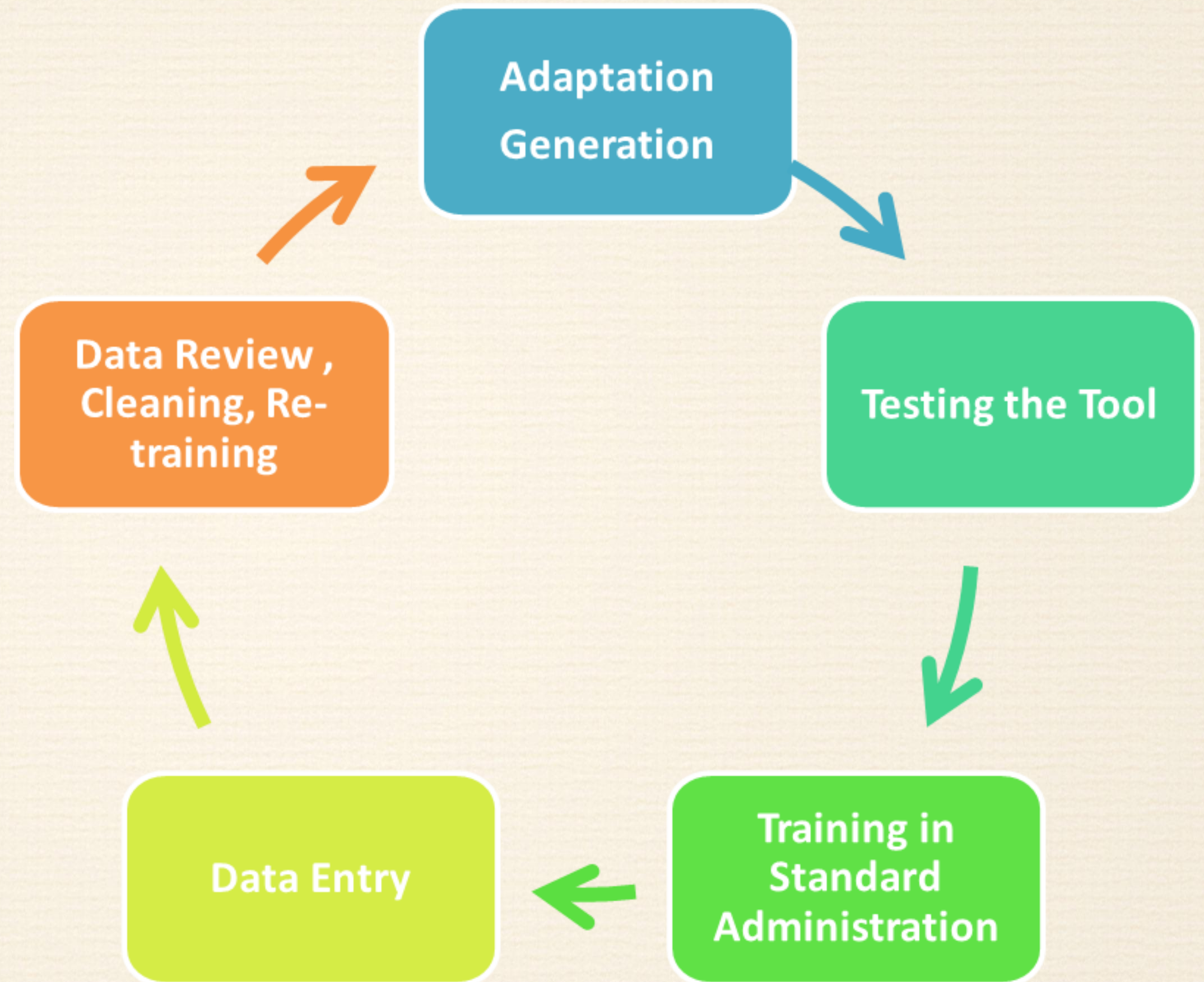
*Check that your tools and methods are reliable and valid to reassure
you that your data means something.*

*For more details refer to the document
“Test Transfer and Application”*

Who is a test designed for?

- ❖ The content of most instruments has been derived from a single culture.
- ❖ The standard administration procedure is also made to fit that context.
- ❖ Thus, each tool, in its original form, will most certainly be limited in the range of behaviours that are seen as important, common, or even recognizable to that culture.

The Cycle of Tool Preparation



The Tool Preparation Teams

- ❖ We strongly suggest setting up three working groups to support this work
 - Those to advise on content, administration and analysis
 - Those to support the adequate translation of the materials
 - Those that train and oversee the piloting, analysis and production of the final version of the tool
- ❖ You should directly involve those with local knowledge in all these groups.

Adaptation or Creation and the Evaluation of your Tools

There are **four key processes** that should be considered in evaluating the ability of a selected tool to provide reliable and valid data in your context.

1. Concept Definition,
2. Item Pool Creation,
3. Developing a Procedure &
4. Review

It is particularly important to familiarize yourself with these steps when you have selected a tool that has not been previously used or validated your context.

Process 1: Concept Definition

- ❖ Start with developing a vocabulary, a language accessible to the target community that clearly articulates
 - the intention of the tool (questions, explanations),
 - outlines interpretation and supports the ability to explore the validity of the measure.

- ❖ This vocabulary will also help guide the translation process if you are focusing only on that.

Process 2: Item Pool Creation

- ❖ Generate a pool of pictures, questions, items, etc. that can be used to create the content of a test or questionnaire,
- ❖ Supplement an already existing tool with context relevant items
- ❖ or help identify potential substitutions if required.

Process 3: Developing a Procedure

- ❖ Test or questionnaire administration occurs in a social space.
- ❖ The learning from previous rounds in Saving Brains suggests that the reliability of tools depends more on the way the tool is administered, rather than the content per se.
- ❖ Observe and reflect on what methods of administration will engage your target population and
- ❖ Support accurate, equitable and consistent data collection.

Process 4: Review

Be ready to collect data on the data

- ❖ To be sure of your evidence you need to clarify how well the tools used are able to pick up real differences and real change.
- ❖ How well the tool is administered is every closely tied to the quality of the data you collect.
- ❖ The evaluation process must include a regular review of the system for training and supervising the tool use, and the data collection process.

Review Processes

A. De-briefing

sometimes called cognitive interviews

- ❖ The interviews are carried out following the administration of a test or questionnaire with the respondent.
- ❖ What they tell you about their experience of the process will help understand the beliefs and understanding of the participants, and therefore help with the interpretation of results.

B. Psychometric Evaluation

- ❖ This refers to setting up a process to evaluate the fidelity and consistency with which an instrument is used.

For a weighing machine this process corresponds to calibration.

- ❖ Use both qualitative data as well as quantitative data to explain the reliability (consistency) and validity (meaning) of the data the tools are collecting.
- ❖ You particularly need to check on whether your data collection team are gathering the same type of data in the same way.

Key components of evaluation of your metrics include

- ❖ *Consistency* over time, place and administrator. (looking for non-random error that might affect results)
- ❖ *Equity/coverage* using an analysis of missing values (looking for who is not responding/attending, and thus is being left out of your coverage)
- ❖ *Association with the underlying concept*, how the data relate to the key question being asked (triangulating your data sources, looking at interpretation, what is the data telling us and not telling us).

Use the review process to refine the skills of our team

- ❖ Prepare tables and data that you can use to debrief your team.
- ❖ Use them to help clean the data, fill in gaps and understand challenges
- ❖ Use them to help identify patterns of response, and
- ❖ Ways in which the information collected can help in future steps.

And finally

Just as you have been recommended to draw up your TOC to outline the pathways to achievement and change...

Before you start collecting the data,

HAVE YOU ALSO DRAWN UP AN ANALYSIS PLAN?

An initial plan helps you identify whether you are collecting the right data, in the right way,

And to decide what expertise you need to help you to carry out the analysis....

This Analysis Plan should include

What Scores are you going to use,

and

The method you will use to calculate them.

Total Scores

- ❖ For example, for questionnaires there is the additional question of *how to best generate a summary score*.
- ❖ The simpler the better. But plan ahead as to what you might do.
- ❖ Summative scores, adding each item is often the most straightforward way to go.
- ❖ Use an investigation of internal consistency (*alpha* being the most common) to make sure that all the items are in fact contributing to the single scale. You might find some items are best to leave out.
- ❖ There are other methods. Unless you are familiar with the statistics, seek help on this.

Adapting to Local Needs

- ❖ A systematic approach to preparing tests has been outlined in the document

Test Transfer and Application

Download this for a more detailed read.

- ❖ We are currently revising this material to provide a framework for the co-creation of tools where none suitable already exist.

Contributors:

1. _____
2. _____
3. _____

Thank You