TOOLS FOR
DEVELOPMENTAL TESTING
Embedding learning and adaptation in evaluation
There are different ways to test prototypes and ideas. The key feature of developmental testing is that it needs to be quick! Rapid cycles of iterative prototyping mean the need for rapid testing. Designers do a lot of this as a natural part of prototyping. The methods here from evaluation can be added to the design toolkit.

**Program logic**

Once prototypes start to emerge, you can develop a more detailed and robust program logic model. It should have a clear line of sight between the activities and the outcomes. It’s likely to be just one or two pathways from your global theory of change (unless you are doing an enormous design).

**What is program logic?**

Program logic is a powerful thinking tool that helps teams to consider how outcomes can best be achieved, articulate a clear narrative for the choice of intervention, and later help evaluate it. Often represented as a diagram, program logic models show a series of expected consequences, not just a sequence of events. In program logic mapping, these ‘expected consequences’ are arranged to show a pathway of change. Articulating program logic often requires ‘backward mapping’. That is, we start with the intended goals and map downwards to think through what would be the essential preconditions needed to achieve each outcome. For prototypes, we map down to consider specific activities proposed. When models are developed in a participatory manner, they often help groups to come to consensus about realistic activities and test whether they are likely to work.
### Logic outcome hierarchy frequently used in program logic

<table>
<thead>
<tr>
<th>Broader Goals</th>
<th>Healthy vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>End-of-Component Outcomes</strong></td>
<td>Hitting the shore</td>
</tr>
<tr>
<td><strong>Intermediate Outcomes</strong></td>
<td>Ripples</td>
</tr>
<tr>
<td><strong>Immediate changes (Outputs)</strong></td>
<td>Splash</td>
</tr>
<tr>
<td><strong>Influence activities</strong></td>
<td>Throw Rocks</td>
</tr>
<tr>
<td><strong>Foundational activities</strong></td>
<td>Choose rocks and get them ready</td>
</tr>
</tbody>
</table>

*Table 1: Logic outcome hierarchy*
Negative program theory

Most program theories, logic models and theories of change show how an intervention is expected to contribute to positive impacts. Negative program theory, a technique developed by Carol Weiss, shows how it might produce negative impacts.

A negative program theory is constructed using the same processes used to construct a positive program theory, but with possible negative impacts at the end of the logic model rather than the intended positive impacts.

These negative impacts might be:

- the reverse of the intended ones (for example, if the program aims to produce improved educational achievement, a possible negative impact would be reduced educational achievement)
- different types of impacts (for example, a program that aims to improve household income might increase deforestation)

Sources


Better Evaluation: Negative program theory
Non-participant observation

Non-participant observation includes covert (hidden) observation, such as from behind a two-way mirror or from a distance. Some points about this data collection technique:

- Provides a view of program operations as they actually occur. Observer can adapt to events as they occur.
- Can be difficult to interpret seen behaviours. Can be complex to categorise observations.
- Can influence behaviours of program participants.
- Can be expensive.
- Covert observation can raise ethical concerns.

Mini-experiments

The basis of a mini-experiment is to test the results of a prototype or pilot by comparing the results for a number of different treatment groups.

You'll need to:

- Select one to two outcome indicators that represent whether the prototype worked.
- Select your treatment groups (e.g. three prototypes with one variation each).
- Keep other variables the same; only vary one thing per group.
- Test each indicator with each treatment in a standard environment; if it makes sense include a control group with no treatment.
- Compare results.

EvalC3 (Dr Rick Davies)

If you have more than about 30 cases you can test, you could try using some kind of predictive analytics using binary numbers. You'll need to:

- have a single outcome indicator – whether it worked or not
- have as many variables as you like, but they can only be present (1) or absent (2)
- run the data to see which combinations of variables are most likely to work

More information: https://evalc3.net/

EvalC3 is a user-friendly Excel tool developed by Dr Rick Davies to quickly test a number of cases. Its purpose is to enable users: (a) to identify sets of attributes that describe a project intervention and its context, and which are good predictors of the achievement of an outcome of interest; (b) to compare and evaluate the performance of these predictive models; and (c) to identify relevant cases for follow-up, within-case investigations to uncover any causal mechanisms at work.

These predictions are based on the screening of a dataset that (ideally) describes the attributes of a set of those projects, their context and their outcomes. While it involves systematic quantitative cross-case comparisons, its use should be informed by within-case knowledge at both the pre-analysis planning and post-analysis interpretation stages.

The overall approach is based on the view that “association is a necessary but insufficient basis for a strong claim about causation, which is a more useful perspective than simply saying ‘correlation does not equal causation’".
Influences: The design of this Excel package has been influenced by exposure to: (a) Qualitative Comparative Analysis (courtesy of Barbara Befani); (b) RapidMiner open source predictive analytics software; and (c) Goertz and Mahoney's (2012) “A Tale of Two Cultures”.

Contact

The Clear Horizon Academy is Clear Horizon’s flagship learning initiative, designed to bring the skills and expertise of award-winning evaluators who specialise in innovation to a worldwide audience.

Melbourne
129 Chestnut Street, Cremorne, 3121, VIC
+61 3 9425 7777 | info@clearhorizonacademy.com

See other tools and resources here.