

Intervention logic

Intervention logic is the rationale on which departments base their selection of activities.¹

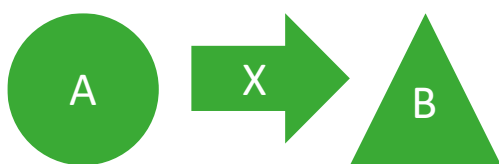
Policy advice is usually fundamentally based on cause and effect

Most policy advice is built around a logical approach to providing information or analysing and proposing a solution to an issue. Underlying such an approach is the idea that the action suggested should be causally connected to the problem.

Through its insight, this link justifies the action suggested; shows the way the solution is expected to work; and provides information on how to monitor the process.

The simple logic is a starting position (A) has a problem. The proposed solution is to take action X, which transforms A into B, a situation without the problem – see Figure 1.

Figure 1 Intervention changes the situation



Source: NZIER

In each circumstance, the detail will be different, and the mechanism that underpins the change from A to B will operate in various ways. In some cases, for instance, X is an incentive working to alter the behaviour of individuals. So, the upshot of the behavioural change is the new situation, B.

This is the case in the use of tax increases on tobacco products to raise the price of cigarettes, deter purchasers and thus reduce the incidence of smoking.

How does it work?

At base, the intervention logic is about explaining what lies behind your recommendations. The idea is to provide a sound framework for the choice of (policy) action.

It starts with an options analysis.

We've done a Masterclass on this.² It leads off with the purposes of options analysis:

"Developing and assessing a range of options is central to policy analysis. Done well, it opens the minds of decision-makers to a broader set of solutions, and allows them to weigh the benefits, risks and trade-offs associated with the various options.

Done poorly, it can look like decision-makers are being shoehorned into a particular solution. Or that the solution is already decided."

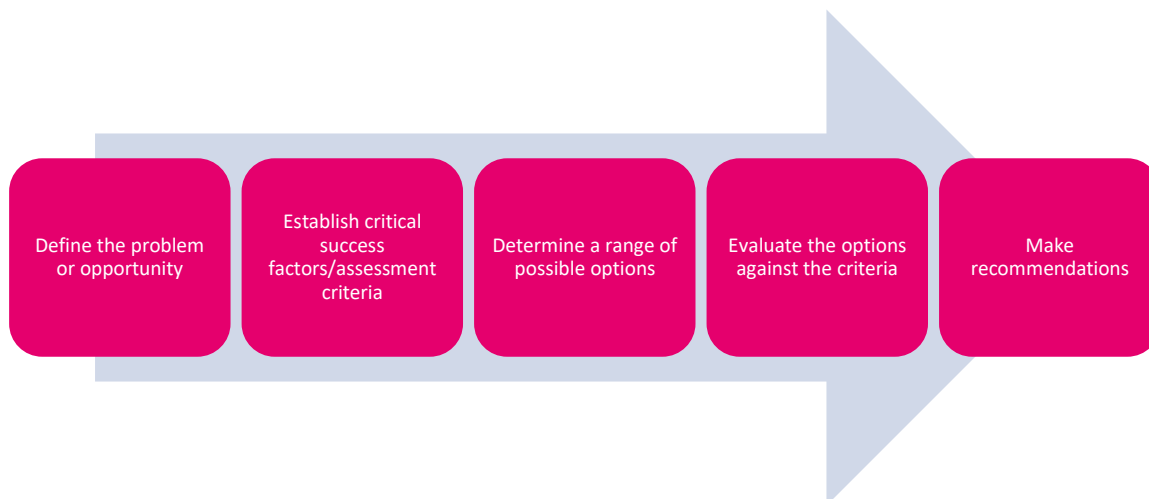
While the Masterclass contains more detail, a simple process is outlined in Figure 2.

This links the options process with the underlying framework of logic.

¹ See State Services Commission (1999) *Occasional Paper 16 Assessing Departments' Abilities to Contribute to Strategic Priorities* at <https://www.publicservice.govt.nz/resources/op16/?e343=2556-ideal-features-of-sound-intervention-logic>

² Masterclass brief 27: *Options analysis: moving beyond a simple assessment* https://www.nzier.org.nz/hubfs/Masterclasses/Central%20Government/brief_27_options_analysis.pdf.

Figure 2 Options analysis



Source: NZIER

The advice paper needs to be able to explain your thinking and analysis in summary form. This helps to clarify what's behind your recommendations and allows your Minister to understand the trade-offs between options. It makes for a more robust case.

Of course, it also helps Ministers consider whether they prefer other options as they will be able to see and understand the trade-offs and perhaps weight those things differently.

Secondly, explain the intervention logic.

This is linked to the point above, as a proper options assessment process is designed to ensure that your solution addresses the issue (or opportunity). It also needs (as detailed above) a clear and sensible explanation of the mechanism that links the intervention and the expected result. Good advice includes evidence³ to support the claims about the mechanism. This gives the Minister confidence that the recommendation is more than a casual opinion.

³ See Masterclass brief 20 *Presenting evidence* <https://www.nzier.org.nz/hubfs/Masterclasses/Central%20Government/Brief%2020%20Presenting%20Evidence%20-%202022.pdf>

Papers we see often miss a key step in the logic. While the recommendations are clear and usually seem very sensible, the papers don't fully explain how they would address the original problem outlined in the paper. They fail to be rigorous about how the action recommended would achieve the intended result. They didn't close the loop!

This may have been implicit, or the Minister may have been able to make this leap themselves.

But not doing this rigorously can lead to gaps in the advice, which can raise questions about the quality of advice or, at worst, have Ministers make the wrong leap in logic.

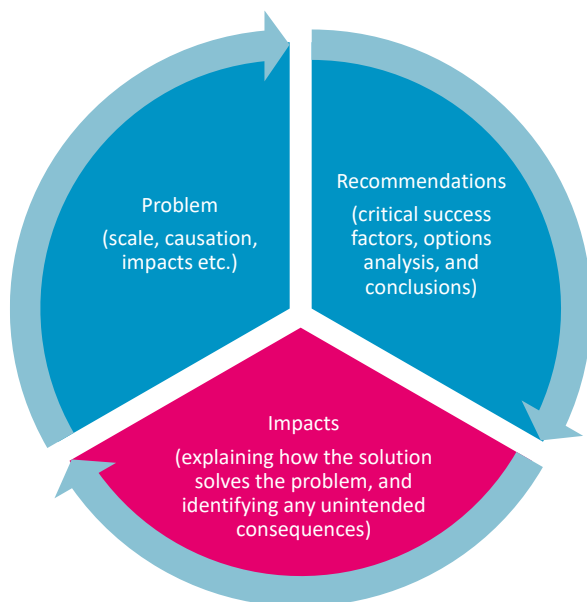
Closing the logic loop can easily be done both by doing a robust options assessment in the first place but also by adding a conclusion to your paper. This should clearly draw out the overall relationship between the problem and the proposed solution, including how the linking process is expected to function.

Papers often miss this step and finish with compliance matters.⁴

⁴ See Masterclass brief 14 *Finishing with a bang* https://www.nzier.org.nz/hubfs/Masterclasses/Central%20Government/brief_14_finishing_with_a_bang.pdf

This is understandable but means the final word is not as effective as it should be as a summary of the recommendations.

Figure 3 Closing the logic loop



Source: NZIER

Finally, make sure the elements are present to make a compelling case.

This is something that can be picked up in peer review. It is a matter of standing in the shoes of the person being advised.

What is the Minister being told? What brief statement can pull together the reasoning of the paper?

The sorts of questions that can be asked to check this are:

- Why are we doing this again?
- What difference will it make?
- How will it help achieve the outcomes we are hoping for?
- Is this the best way to do it?
- How will it address the problem or help realise the opportunity?

This paper was written by NZIER, May 2022.

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Appendix A Ideal features of sound intervention logic⁵

Intervention logic is the rationale on which many aspects of the analytical framework are based. It supports the choices made at a lead agency level on outcome measures and targets and the choices made by departments on their selection of individual activities.

The purpose of the criteria below is to set up the ideal conditions that would exist for intervention logic generally so that a sound assessment of departments' contributions to Strategic Priorities can be made.

Sound intervention logic:

Is backed by research	<ul style="list-style-type: none"> • It considers the literature (including debate within the literature) on the subject. • It is based on research by recognised experts or reputable organisations, which has been subject to peer review.
Is based on previous experience and testing	<ul style="list-style-type: none"> • It has been tested within New Zealand or overseas. • It has been tested by pilot schemes or in fully operational interventions.
Is, where possible, founded on valid theories of cause and effect	<ul style="list-style-type: none"> • It is based, where possible, given the complexity of this issue, on reasonable estimates of causation. • It relies on the clear establishment of causal links, where they can be made. • It is based on reasonable causal assumptions or on research-backed correlation, where direct causality is impossible. • It makes any assumptions explicit, where causality is unclear or undesirable.
Is practical	<ul style="list-style-type: none"> • It considers the availability of local resources and personnel. • It pays attention to the likelihood of support from key interest groups (in particular Māori).
Informs as part of a learning cycle	<ul style="list-style-type: none"> • Intervention logic is an ongoing activity. • Ex-post evaluation feeds back to the next round of intervention logic.

Source: SSC (1999) Occasional Paper 16: Assessing Departments' Capability to Contribute to Strategic Priorities

⁵ See State Services Commission (1999) *Occasional Paper 16 Assessing Departments' Abilities to Contribute to Strategic Priorities* at <https://www.publicservice.govt.nz/resources/op16/?e343=2556-ideal-features-of-sound-intervention-logic>

Appendix B Material to help

UK Government

The UK Government has useful advice within the Health and Wellbeing approach. See

<https://www.gov.uk/guidance/evaluation-in-health-and-wellbeing-creating-a-logic-model>

Contents

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[Features of good logic models](#)

[Limitations of logic models](#)

[Categorising aspects of logic models](#)

[Developing a logic model for exploratory interventions](#)

[References](#)

Ministry of Transport

Here's a piece from MOT which is helpful:

<https://www.transport.govt.nz/assets/Uploads/Intervention-Logic-Mapping.pdf>

It is a brief and colourful "do it yourself" guide to logic mapping with a helpful example.

Superu

Another useful source is what used to be the New Zealand go-to site for evaluation, Superu. The link is https://thehub.swa.govt.nz/assets/documents/V2_Handbook_FINAL-enhanced.pdf

See pages 15 – 24 in Module 2.

The Treasury

There is also technical material on the Treasury website dealing with the Better Business Case methodology and training.

The specific material on logic mapping and its use is at

<https://www.treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/better-business-cases-bbc/bbc-methods-and-tools/investment-logic-mapping>