Introduction to logic models

Public Service Transformation Network 'Evaluation Academy' – April 2015

Before changes to how public services are delivered can become reality it is necessary for partnerships to demonstrate that their proposals are based on clear analysis of what is wrong at present and how this can be changed, and how the effectiveness of their proposals will be monitored once they have been implemented. This is where a logic model can help.
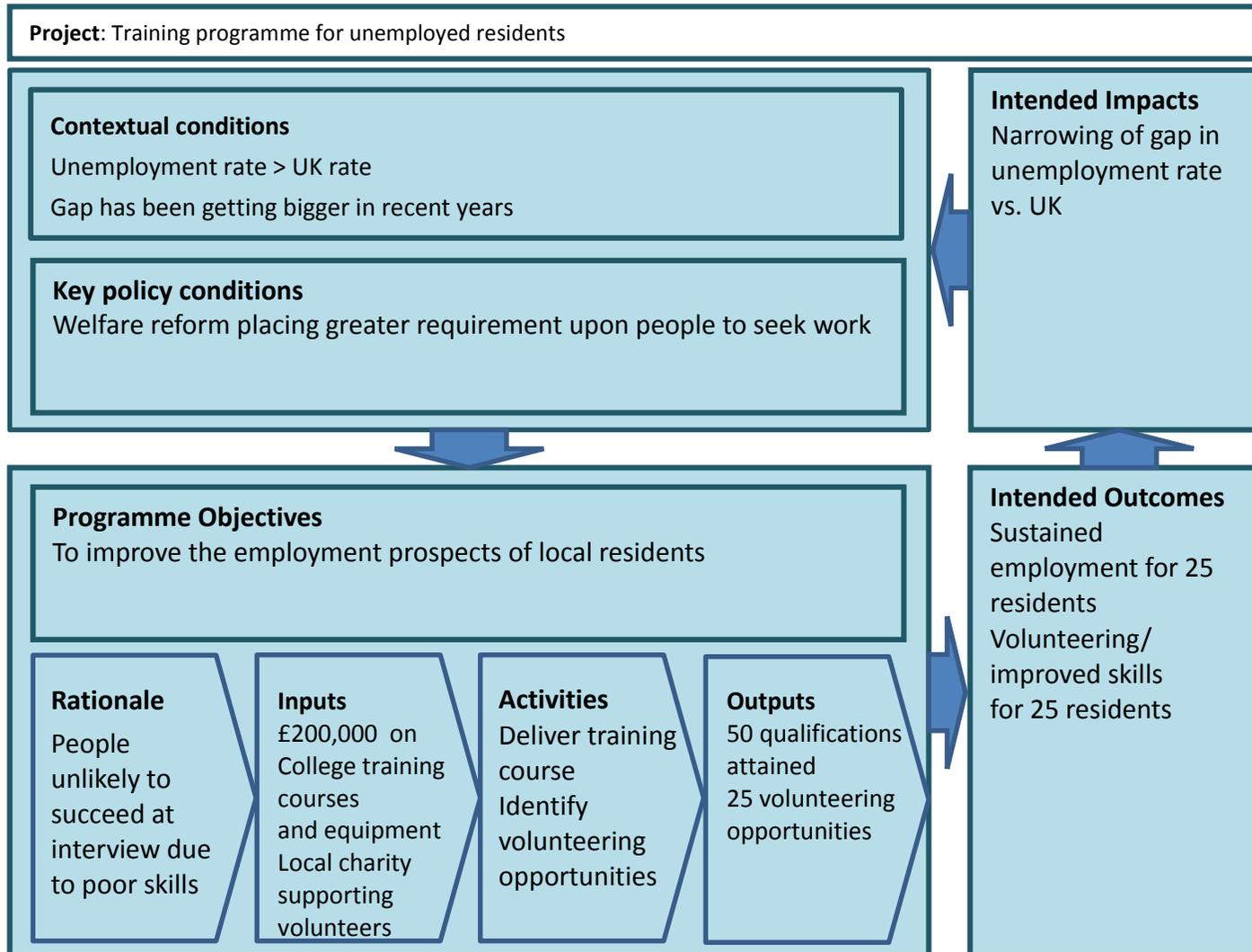
What is a logic model?

Fundamentally a logic model is about 1) showing what is wrong, 2) explaining the steps that will be taken to correct this, and 3) describing the outcome if these steps are successful. Logic models are used by public agencies, private companies and 3rd sector organisations as part of business planning and delivery, acting as a systematic and visual way of demonstrating the thinking that underpins a programme and policy.

There are many different ways to depict a logic model (see the further information section for links to the various depictions); some logic models are circular (see the appendix for a blank version); some are linear; but all basically include the same information set out in the same order. In the next section we describe the different parts of a logic model in more detail. These parts are sequenced to describe a virtuous circle. The logic model begins with the *context* that a programme is operating in, identifying issues of poor performance and the policies and strategies that address this poor performance and shape responses to it. The logic model then details the high level *objectives* around tackling this poor performance, the *funding and resources* that will be needed, how these resources will be used to deliver specific, suitably designed *activities*, and the numbers who will benefit from these activities. The penultimate section of the logic model lists the *outcomes* residents, clients, the community etc will experience once the activities have completed. The final section of the logic model identifies the population level *impact* measures that will change as a result of these outcomes, thereby removing the contextual factors that made the programme necessary in the first place.

On the next page we illustrate the concept of a logic model with reference to a (highly simplified) training programme for unemployed residents.

Figure 1: A basic logic model of a training programme for unemployed residents

Public Service Transformation Network

Project: Training programme for unemployed residents

Contextual conditions

Unemployment rate > UK rate

Gap has been getting bigger in recent years

Key policy conditions
Welfare reform placing greater requirement upon people to seek work

Intended Impacts
Narrowing of gap in unemployment rate vs. UK

Programme Objectives
To improve the employment prospects of local residents

Rationale
People unlikely to succeed at interview due to poor skills

Inputs
£200,000 on College training courses and equipment Local charity supporting volunteers

Activities
Deliver training course
Identify volunteering opportunities

Outputs
50 qualifications attained
25 volunteering opportunities

Intended Outcomes
Sustained employment for 25 residents
Volunteering/ improved skills for 25 residents

The different parts of the logic model

Conditions – this part of your logic model should give readers who are unaware of your local area a quick understanding of the challenges your local area faces, the policies that already exist to tackle these challenges and what needs to happen for these challenges to be overcome. In detail, the section should:

- Provide **evidence** of issues within the local area – examples would be data on local unemployment rates of rates of ill health – showing how this issue is worse/more pressing than in other areas, how it might be getting worse over time etc.
- Summarise the local and national **policies** that are influencing how local areas think and respond to the issue – for example, is the Localism Bill a key part of your case for greater local involvement in service delivery, what are the relevant strategic aims of your local council of NHS organisation?
- Explain how these challenges can be overcome – do local residents and service providers need to adopt a new attitude towards the role of the public sector? Do people need to be better informed about services?

Detail of your proposal – these parts of your logic model should detail the 'nuts and bolts' of your proposal, telling people what resources you have, what you will be doing with these resources, for how many people etc. The section should:

- Set out the high level **objectives** of your programme – these will be a distillation of the outcomes (see next box) you are hoping to achieve for your residents plus perhaps some process improvements amongst the partners.
- **Rationale –** why have you designed the delivery of your programme as you have? Why will the problem not go away if things are left as they are? To illustrate, a proposal may involve combining several services in one building so that residents find it easier and quicker to access the range of services they need. Alternatively, you may set up a website to enable people to shape the design of local services because your research has found that people are currently unaware of how they can influence service design and would like an online solution.
- **Inputs** – in this box you should list the funding, staffing and equipment/facilities you have available to you to deliver your programme. Include the funds, staff and equipment of all agencies within your partnership and don't forget to list in-kind support (e.g. volunteer time)
- **Activities** – tell the reader what you will be doing with these inputs. Will you be running events or arranging training days, will you set up a website etc?
- **Outputs** - the measurable or quantifiable results of your proposal, expressed in terms of the goods and services produced in the short-term as a consequence of your activities. For example, a proposal may involve buying 50 places on a training course, or recruiting 10 volunteers, or holding 3 community events.

Intended Outcomes – if your proposal is a success then residents and organisations are going to be attending events and courses, accessing new sources of information, receiving advice on various topics etc but what is going to be the **wider, medium and longer-term consequences of these activities and outputs?** You need to list these consequences in your outcomes box. Examples of outcomes would be:

- Improvements in residents' long-term health
- Young people entering sustained employment
- Closer working between different public agencies and the voluntary sector
- More people volunteering
- People feeling they have a greater say in local service delivery

Intended Impacts – if the consequences you have identified in your Outcomes box do materialise then you should be having **a positive impact upon the wider contextual factors/issues** that you identified at the start of your logic model. To give an example, a programme generates 50 apprenticeships (e.g. Outputs) with local businesses. The outcome of this is 40 young people entering sustained employment. The impact is a reduction in the local youth unemployment rate. There will have been other factors that have influenced the local youth unemployment rate but the programme will have played a role. Other examples of impacts would be:

- Lower local hospital admission rates
- Increased local volunteering rate
- Higher %age of people who say they feel connected to their neighbours

Understanding the difference between Outcomes and Impacts

People often struggle to understand the difference between an outcome and an impact. This is because the terms are sometimes used interchangeably and are often provided without an accompanying definition. For your logic model it may be easiest to **think of outcomes as the things you will be measuring** (i.e. changes for your residents or organisations) and **impacts as the things other people will be measuring** (i.e. changes in headline statistics that local authorities or health agencies may record). Also, impacts should link back to the contextual evidence you presented in your first logic model box.

Tips for producing a good logic model

There is no single way of completing a logic model but **many people prefer to complete a logic model backwards**, starting with the impacts they hope to deliver, then stating which outcomes they need to deliver for residents/agencies to realise these impacts, then identifying how many will achieve these outcomes, through the delivery of what activities, which will be delivered using the following inputs and so on and so on.

Partnerships are encouraged to see the production of their logic model as **a group exercise**. By involving as many people as possible from as wide a range of organisations and groups as possible, you will get the maximum number of views on what exactly your proposal involves and what it is seeking to achieve. Staff from one organisation may understand how the proposal will affect the issues they encounter on a daily basis but they may be less aware of how the proposal will affect wider issues within the community. Having as many people as possible round the table when completing your logic model will also help you to understand the full picture of how many organisations and individuals will be giving time and resource to support the proposal.

A good logic model should **include as many numbers and figures as possible**. Having these in place will help you to understand and demonstrate the scale of the issues your proposal is seeking to tackle; it will help you to judge whether you have enough staff and funding to deliver your proposal or whether you need to take a more targeted approach; and it will give you targets against which to measure your future delivery. **Think what would happen if these numbers went up or down**. Do you have a Plan B in place to support more people, seek alternative funding, or change focus?

Once you have a draft of your logic model **test it with your peers**. Ask them whether what you are proposing is plausible. Is it clear to them that there is a problem that needs addressing? Do they understand how the way you will deliver your proposal will lead to the outcomes you are targeting? Sharing the logic model should also help you to identify the other complexities and relationships that may have a bearing both on the current situation and what you hope to achieve; following this identification you may decide to alter your plans.

Use your completed logic model to **begin the process of planning how you will monitor your performance**. Will your systems be able to record the numbers of outputs and outcomes you deliver? What are the key pieces of data that you will need to monitor outcomes and where can you get this data? Do you need to design resident surveys or draw up a list of stakeholders to speak to about your work?

How a logic model can help with cost benefit analysis

Developing a good logic model will provide these partnerships with an advantage when it comes to undertaking cost benefit analysis.

In simple terms, cost benefit analysis involves weighing the total cost of a proposal against the total value of the benefits that the proposal will deliver. If the value of the benefits outweighs the cost then there is a financial and economic case for undertaking that proposal. A good logic model will give partnerships the basis for quantifying their costs and benefits.

Figure 2: How a logic model can help with cost benefit analysis
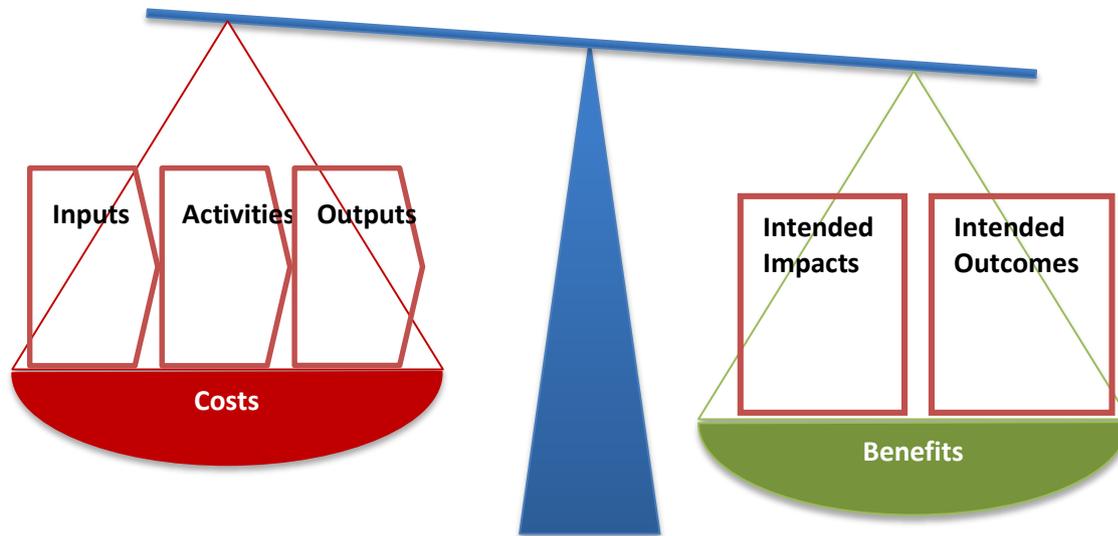
The sections of the logic model which relate to *inputs*, *activities* and *outputs* fall on the costs side of the cost benefit equation. From the *inputs* box partnerships may have detail on exactly how much budget each agency will be investing in the proposal. In some cases *inputs* will not be expressed in monetary terms – for instance, 5 volunteers – in such cases it should be possible to use the *activities* box to work out how much of that input will be required, followed by a further step of working out the unit cost of that input per hour/week/year etc. Alternatively, a proposal may have specific *output* targets – for instance, run 10 community events – which again can be costed fairly easily.

The sections of the logic model which relate to *impacts* and *outcomes* fall on the benefits side of the cost benefit equation. It is possible to put a monetary value on *outcomes* and *impacts* such as one fewer visit to the GP, one fewer police call out, or one resident moving from out of work benefits to employment. There are databases and models which can do this 'monetisation' for you.

Sources of further information

- Evaluation Support Scotland have produced a guide to logic models which is available here
- The Better Evaluation site gives links to other ways of presenting logic models
- The Pell Institute has produced guides to developing and using logic models
- The Government's Magenta Book provides guidance on project design and evaluation
- Supplements to the Government's Green Book can help you to consider different ways of delivering programmes

Appendix – sample logic model

Project:

Conditions

Local context

Policy context

What needs to be in place for change to occur?

Intended impacts

What is the change you want to see?

Programme objectives

High level summary of intended outcomes

Intended outcomes

What are you trying to achieve?

Rationale

Evidence and assumptions linking outputs to outcomes and impacts

Inputs

What resources do you have?

Activities

What will the partnership do?

Outputs

What will the partnership provide?