Program theory and logic models for systemic evaluation

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Overview

• Presentation:
  – Simple, complicated and complex systems
  – 7 aspects to consider for evaluation

• Examples
  – How these aspects have been addressed in some recent examples of program theory

• Discussion
  What recommendations of practical relevance can be made?
  – How to develop it further?
  – How to create the preconditions for systemic evaluations (if it is considered desirable)

Recommendations for
  – Evaluators
  – Managers of evaluations
  – Donors
Sources for this presentation

- Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use by Michael Quinn Patton
- Purposeful Program Theory: Effective Use of Theories of Change and Logic Models by Patricia J. Rogers and Sue C. Funnell
Some definitions

Program theory: An explicit theory of how an intervention contributes to the intended or observed outcomes, which has 2 components:

Theory of change: The process by which change comes about (for an individual, organization or community)

Theory of action: How the intervention is constructed to activate the theory of change

Logic model: A visual representation of a program theory, usually in a diagram but sometimes in a table

Program theory evaluation: An evaluation that is at least partly guided by an explicit program theory. It is not necessarily ‘driven’ by the theory, since it should be driven by its intended purpose and the needs of its intended users
What people sometimes assume you mean by logic models that address complexity

Note. An earlier version of this figure was published as Figure 1 in A. Best et al. 2006. Systemic transformational change in tobacco control: An overview of the Initiative for the Study and Implementation of Systems (ISIS). In Innovations in health care: A reality check, ed. A. L. Casebeer, A. Harrison, and A. L. Mark, 189–205. New York: Palgrave Macmillan. Reproduced with
Two framings of simple, complicated and complex

<table>
<thead>
<tr>
<th></th>
<th>Glouberman and Zimmerman 2002</th>
<th>Kurtz and Snowden 2003</th>
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| **Simple** | Tested ‘recipes’ assure replicability  
Expertise is not needed | The domain of the ‘known’,  
Cause and effect are well understood,  
Best practices can be confidently recommended, |
| **Complicated** | Success requires high level of expertise in many specialized fields + coordination | The domain of the ‘knowable’  
Expert knowledge is required, |
| **Complex** | Every situation is unique – previous success does not guarantee success  
Expertise can help but is not sufficient; relationships are key | The domain of the ‘unknowable’,  
Patterns are only evident in retrospect. |


Different types of systems

A simple system

A complicated system

A complex system

http://www.flickr.com/photos/28556257@N00/441814998/
What constitutes a systemic approach to evaluation?

Attention to:

• Inter-relationships
• Perspectives
• Boundaries


Aspects of complicated and complex situations and interventions with potentially important implications for evaluation

1) Focus
2) Governance
3) Consistency
4) Necessariness
5) Sufficiency
6) Change trajectory
7) Unintended outcomes
(1) Focus

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
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<tbody>
<tr>
<td>Simple</td>
<td>Single set of intended outcomes/impacts</td>
</tr>
<tr>
<td>Complicated</td>
<td>Different intended outcomes/impacts intended by different partners/stakeholders</td>
</tr>
<tr>
<td></td>
<td>Different intended outcomes/impacts at different levels</td>
</tr>
<tr>
<td>Complex</td>
<td>Emergent intended outcomes/impacts</td>
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</tbody>
</table>
Simple focus

Intervention that produces single set of outcomes
Complicated focus (1)

Intervention that produces different outcomes valued by different stakeholders
Complicated focus (2)

Intervention that produces different outcomes at different levels
Complex focus (1)

Intervention that produces emergent intermediate outcomes
Complex focus (2)

Intervention that produces emergent long-term outcomes
(2) Governance

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<tbody>
<tr>
<td><strong>Simple</strong></td>
<td>Single organization</td>
</tr>
<tr>
<td><strong>Complicated</strong></td>
<td>Specific organizations with formalized requirements</td>
</tr>
<tr>
<td><strong>Complex</strong></td>
<td>Emergent organizations working together in flexible ways</td>
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</table>
(3) Consistency

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<tbody>
<tr>
<td>Simple</td>
<td>Implement what has been identified as ‘best practice’ or ‘evidence-based practice’ – what works</td>
</tr>
<tr>
<td>Complicated</td>
<td>Classify the situation and implement what has been adapted for that context – what works for whom in what situation</td>
</tr>
<tr>
<td>Complex</td>
<td>Ongoing adaptation to emerging conditions – what is working here</td>
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</table>
Complex consistency

Adaptive, responsive intervention
(4) Necessariness

<table>
<thead>
<tr>
<th>Simple</th>
<th>Only way to achieve the intended impacts</th>
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<tbody>
<tr>
<td>Complicated</td>
<td>One of several ways to achieve the intended impacts – which can be identified in advance</td>
</tr>
<tr>
<td>Complex</td>
<td>One of several ways to achieve the intended impacts – which are only evident in retrospect</td>
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</table>
(5) Sufficiency

<table>
<thead>
<tr>
<th>Simple</th>
<th>Sufficient to produce the intended impacts. Works the same for everyone</th>
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<tbody>
<tr>
<td>Complicated</td>
<td>Only works in conjunction with other interventions (previously, concurrently, or subsequently) and/or only works for some people and/or only works in some circumstances – which can be identified in advance</td>
</tr>
<tr>
<td>Complex</td>
<td>Only works in conjunction with other interventions (previously, concurrently, or subsequently) and/or only works for some people and/or only works in some circumstances – which is only evident in retrospect</td>
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Ways in which an intervention can work with other interventions

Figure 8: Five ways in which Strategy projects worked together with other interventions

1. Building on a previous activity
   - Something before
   - Strategy project

2. Benefiting from a concurrent project
   - Strategy project
   - Concurrent project

3. Jointly funded through another program
   - Jointly funded project
   - Other program funding

4. Strategy project part of a larger project
   - Larger project
   - Strategy project

5. Laying foundation for subsequent activity
   - Strategy project
   - Something after

Stronger Families and Communities Strategy evaluation 2000-2004 Final Report
http://www.rmit.edu.au/casr/sfcse
Complicated necessariness (1)

Multi-stage intervention (eg Outcome Mapping)

- Intervention
- Shorter term outcomes
- A different intervention
- Longer term outcomes

Multi-stage intervention (eg Outcome Mapping)
Complicated necessariness (2)

Intervention that works in combination with other interventions
Complicated necessariness (3)

Intervention that works differently for different types of participants

INTERVENTION

PARTICULAR PARTICIPANT CHARACTERISTICS

INTERVENTION

DIFFERENT PARTICIPANT CHARACTERISTICS

SHORT-TERM OUTCOMES

LONG-TERM OUTCOMES

DIFFERENT SHORT-TERM OUTCOMES

DIFFERENT LONG-TERM OUTCOMES
(6) Change trajectory

<table>
<thead>
<tr>
<th>Simple</th>
<th>Constant, linear relationship between effort and results (eg twice the investment produces twice the results)</th>
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<tbody>
<tr>
<td>Complicated</td>
<td>Well understood but not linear relationship between effort and results (eg curvilinear dose-response relationship such as diminishing returns or too much of a good thing)</td>
</tr>
<tr>
<td>Complex</td>
<td>Emergent relationship between effort and results (eg unknown tipping points)</td>
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</table>
### (7) Unintended outcomes

<table>
<thead>
<tr>
<th>Simple</th>
<th>Unintended outcomes can be anticipated and monitored</th>
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<tbody>
<tr>
<td><strong>Complicated</strong></td>
<td>Different unintended outcomes are likely in particular combinations of circumstances – expertise is needed to anticipate them and identify them</td>
</tr>
<tr>
<td><strong>Complex</strong></td>
<td>Unintended outcomes cannot be anticipated but only identified (and addressed) as they emerge or in retrospect</td>
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Some thoughts on how program theory might address complicated and complex aspects

**Issues that may need to be addressed**

1. Focus
2. Governance
3. Consistency
4. Necessariness
5. Sufficiency
6. Change trajectory
7. Unintended outcomes

**Possible evaluation methods, approaches and methodologies**

- Emergent evaluation design that can accommodate emergent program objectives and emergent evaluation issues
- Collaborative evaluation across different stakeholders and organisations
- Non-experimental approaches to causal attribution/contribution that don’t rely on a standardized ‘treatment’
- Realist evaluation that pays attention to the contexts in which causal mechanisms operate
- Realist synthesis that can integrate diverse evidence (including credible single case studies) in different contexts
- ‘Butterfly nets’ to catch unanticipated results
Examples

Examples are on a separate handout, along with pages for recording comments in terms of the 7 aspects and broader implications
1. VECO Indonesia: Sustainable Agricultural Chain Development, Deprez and Van Steenkiste (2010)

2. New Zealand Department of Labor: Recognised Seasonal Employer policy (Nunns and Roorda, 2009)


3. International Center for Tropical Agriculture (CIAT) Striga programs (Douthwaite, Kuby, van de Fliert and Schulz, 2003)

4. Waawiyeeya Evaluation Tool, Tending the Fire program (Johnston, 2010)


5. Stronger Families and Communities Strategy (CIRCLE, 2006)

Discussions

What recommendations of practical relevance can be made?
- How to develop it further?
- How to create the preconditions for systemic evaluations (if it is considered desirable)

Recommendations for
- Evaluators
- Managers of evaluations
- Donors
References and further reading


