Complex systems and developmental evaluation

Two Case Studies
Agenda

- Introduction to developmental evaluation – 10 minutes
- He Oranga Poutama Case Study: Applying Developmental Evaluation and Systems thinking in Indigenous Contexts by Nan Wehipeihana, the Kinnect Group, Wellington, New Zealand. nanw@clear.net.nz – 20 minutes
- ECOSAD Case Study Applying a Complex Systems Lens to Monitoring and Evaluation, by Ricardo Wilson-Grau, independent consultant, Brazil and the Netherlands. ricardo.wilson-grau@inter.nl.net – 20 minutes
- Questions and answers
Developmental Evaluation

Evaluation to support the development of innovation in complex situations
What Developmental Evaluation is and is not
Evaluation is not, however, the same as evaluation of development.
Developmental Evaluator

Asks evaluative questions and applies evaluation logic to support the development of an innovative project, programme, product, organizational change, policy or system.

Is part of the team conceptualizing, designing and testing new approaches.

Primary function is to elucidate team discussions with evaluative questions, data and logic, and facilitate data-based decision-making in the developmental process.

- Michael Quinn Patton
When is Developmental Evaluation useful?
Right conditions

• Your intervention model does not yet exist; it is to be created
• The model exists but must be developed (versus improved)
• The situation is complex – the most important relationships of cause and effect are fundamentally unknown
Five contexts

• **Ongoing development**
• **Adapting effective/proven principles to a new context**
• **Rapid response in turbulent, disaster situations**
• **Pre-formative development**
• **Major systems change and cross-scale development evaluation**
Situations in which this...
...looks like this
When at the moment of planning

There is disagreement about what is the problem

There is uncertainty about what to do

Zimmerman’s matrix

Agreement

Close to

Far from

Socially Complicated
Build relationships, create common ground

Simple
Plan, control

Certainty

Close to

Far from

Technically Complicated
Experiment, coordinate expertise

Zone of Complexity
Or cause and effect is unknown

SNOWDEN’S CYNEFIN

COMPLEX

Cause and effect are only coherent in retrospect and do not repeat

No cause and effect relationships perceivable

CHAOS

KNOWN

KNOWABLE

Cause and effect relations repeatable, perceivable and predictable

Cause and effect separated over time and space
In addition to complex nonlinear dynamics...

Complex Systems too, especially when present in social innovation, is inherent to Developmental Evaluation.
Elephant Metaphor

Inspired and informed by Michael Quinn Patton and Bob Williams
The system is more than the sum of its parts
Interrelations
Boundaries
Boundaries
Different perspectives
Developmental Evaluation uses 

**systems thinking**

To monitor and assess:

- The changes in the **relationships** between the components of a system
- The appropriateness of the **boundaries** we use for the components of the system
- The different **perspectives** about what changes and how it changes through a development intervention
In conclusion
| Traditional evaluation paradigms | Developmental evaluation |

When to use and not use Developmental Evaluation
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<td>Key variables expected to affect outcomes are knowable, and reasonably measurable</td>
<td>Unknown outcomes, vision and values driven processes</td>
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Many thanks!

There are two annexes with further information
ANNEX 1

Five purposes of Developmental Evaluation

These next slides summarises the five purposes of Developmental Evaluation adapted from Chapter 10 of Michael Quinn Patton’s book.
## Five purposes of developmental evaluation

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<th>Primary developmental evaluation purpose</th>
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<td>1. Ongoing development Being implemented in a complex and dynamic environment</td>
<td>No intention to become a fixed/standardised model Identifies effective principles</td>
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<td>2. Adapting effective principles to a new context Innovative initiative Develop ‘own’ version based on adaption of effective principles and knowledge</td>
<td>Top-down—general principles knowledge disseminated Bottom-up—sensitivity to context, experience, capabilities and priorities Adaptation vs Adoption</td>
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<td>3. Developing a rapid response in turbulent major change context Existing initiatives and responses no longer effective as conditions change suddenly</td>
<td>Planning, execution and evaluation occur simultaneously</td>
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<td>4. Pre-formative development of potentially scalable innovative</td>
<td>Changing and dynamic situations require innovative solutions to worsening conditions Model needs to be developed/does not exist</td>
<td>Models may move into formative and summative evaluation, others remain in developmental mode Inform different potential scaling options</td>
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<td>5. Major systems change and cross scale developmental evaluation</td>
<td>Disrupt existing system Taking an innovation to scale Major systems change and changing scale will add levels of complexity, new uncertainties and disagreements</td>
<td>Models change as they are taken across time, space and to larger systems Adaptive cross scale innovations assume complex, nonlinear dynamics—agility and responsiveness Adaptation -- Replication</td>
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*Adapted from Patton (2010)*
Annex 2

Sources of further information


