Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use

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Program Evaluation Quality Assurance Summit
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5 types of DE

1. Ongoing Development

Development vs. Improvement
Blandin Community Leadership Program

LEADERSHIP...
YOU HAVE TO DO IT YOURSELF,
BUT YOU CAN'T DO IT ALONE.
Beyond Formative and Summative to

Developmental Evaluation

as an option in the repertoire of approaches
Challenge:

Matching the evaluation process and design to the nature of the situation:

Contingency-based Evaluation
Conditions that challenge traditional model-testing evaluation

- High innovation
- Development
- High uncertainty
- Dynamic
- Emergent
- Systems Change

Adaptive Management
Mintzberg on Strategy
Two types of strategy: Intended & Emergent

Intended Strategy

Unrealized Strategy
Deliberate Strategy
Emergent Strategy
Realized Strategy
First DE Type

**Ongoing development** in adapting a project, program, strategy, policy, or other innovative initiative to new conditions in complex dynamic systems.
5 Types of DE

2. *Pre-formative development of a potentially scalable innovation* to the point where it is ready for traditional formative and summative evaluation; pre-formative developmental evaluation works with emerging ideas and visionary hopes in a period of exploration to shape them into a potential model that is a more fully conceptualized, potentially scalable intervention.
As models emerge out of exploratory and innovative initiatives, some may move into more traditional formative and summative evaluation to determine scalability and generalizability, while others remain in developmental mode, either undergoing further development or continuous experimentation in the search for new models.
5 Types of DE

3. *Adapting effective general principles to a new context* as ideas and innovations are taken from elsewhere and developed within a new setting, the work of developmental evaluation in the dynamic middle between top-down and bottom-up forces of change.
Fundamental Issue:
How the World Is Changed

Top-down dissemination of “proven models” versus Bottoms-up adaptive management
Models vs. Principles

Identifying proven principles for adaptive management
(bottoms-up approach)

versus

Identifying and disseminating proven models
(top down approach)
Exhibit 6.1. Top-Down, Going-to-Scale Theory of How the World Is Changed

1. Identify a promising intervention. [e.g., theory-based model]

2. Standardize and stabilize the intervention [formative evaluation]

3. Rigorously test the intervention: One or more summative evaluations using randomized controlled trials and quasi-experimental methods; meta-analysis of multiple such evaluations. [summative evaluation; meta-analysis]

4. Summative evaluation and meta-analysis results are peer reviewed by qualified researchers for validation as an evidence-based best practice model. [scholarly, credible peer review evaluation]

5. Publish and disseminate the findings about the model. [consensual validation as findings spread]

6. Funders and policy makers support replication of the model throughout the country or world, advocating and financing taking it to scale.

7. Practitioners and adopters in many organizations and communities implement the model exactly as tested and validated. [Monitoring & evaluation of adoption]

8. Evaluators independently monitor fidelity of implementation. [Fidelity of implementation evaluation]

9. Participants in the intervention receive and benefit from the model, attaining and manifesting intended outcomes. [Outcomes evaluation]

10. People are helped. Indicators of social, health, educational, and/or economic well-being improve. [Impact evaluation]
Exhibit 6.4. Bottom-Up, Local Innovation & Adaption Theory of How the World Is Changed

10. Locally desired outcomes are attained and sustained. [local impact evaluation]

9. As more people adopt and adapt the local innovation, the system is tipped and the change can be sustained. [systems change]

8. The innovation spreads locally as people see and experience the results for themselves. [tipping point can occur as adoption momentum grows]

7. As positive results are attained, early adopters of the innovation demonstrate the innovation to others and advocate for change. [diffusion of innovations]

6. Based on the results they see, local people adapt what they are doing to improve results. [context-specific outcomes evaluation]

5. Local people experiment and test out how their ideas work in practice. They understand what is working through direct involvement and engagement. [implementation evaluation]

4. Local people determine desired outcomes and indicators of success. [Relevance, commitment, and buy-in are key factors]

3. Local people agree to undertake a change process. [local ownership a key factor]

2. Local people explore possibilities and adapt ideas from others that fit their context. [grassroots involvement in considering options]

1. Local people identify a need or desired change. [local needs assessment]
Facilitating Principles-Focused, Networked Change

Top-down change processes centered on best practice models and effective principles

Model Dissemination
Diffusing innovations
Summative evaluation

Identifying effective patterns & principles thru sharing lessons

Networks of those involved in change innovate, adapt, and track processes and impacts through Developmental Evaluation

Nurture ongoing local adaptation

Going to scale
Local context factors

Expanding for greater impact
Micro system dynamics

Local knowledge, grassroots innovation, adaptation & emergence as the foundation for bottom-up change
5 Types of DE

4. *Major systems change and cross-scale developmental evaluation*, providing feedback about how major systems change is unfolding, evidence of emergent tipping points, and/or how an innovation is or may need to be changed and adapted as it is taken to scale, that is, as its principles are shared and disseminated in an effort to have broader impact.
Horizontal scaling across systems or vertical scaling to broader systems may involve more than adaptation; these dissemination and scaling processes can evolve an essentially new development, the emergence of which can be documented and analyzed as part of a developmental evaluation.
Systems

• Parts are interdependent such a change in one part changes all parts
• The whole is greater than the sum of the parts
• Focus on interconnected relationships
• Systems are made up of sub-systems and function within larger systems
Systems Thinking
Understanding the Elephant from a Systems Perspective
The relationship between what goes in and what comes out

What conceptual framework informs your theory of change?
Rehabilitation Program Example
Logic Model for Rehabilitation Employment Program

1. Program reaches out to those in need of employment

2. Eligible recruits enter and attend the program (participation)

3. Learn needed skills (increased knowledge)

4. Develop deeper commitment to work (attitude change)

5. Engage in effective job search strategies (behavior change)

6. Get and retain a living wage (desired outcome)
Systems web showing possible influence linkages for a disabled person seeking employment

- Training program staff
- Person’s family members
- Teachers/other adults
- Disabled person’s attitudes & behaviors
- Person’s Work associates
- Person’s peer group
Using Different System Lenses to Understand a “particular” System

**Biologic System**
- Emergence
- Coordination/synergy
- Structure, Process, Pattern
- Vitality

**Sociologic System**
- Relationships
- Conversations
- Interdependence
- Loose-tight coupling
- Meaning/sense

**Mechanical / Physical System**
- Flow
- Temporal Sequencing
- Spatial Proximities
- Logistics
- Information

**Psychological System**
- Organizing
- Forces Field
- Ecological/Behaviour Settings

**Economic System**
- Inputs/Outputs
- Cost/Waste/Value/Benefits
- Customers/Suppliers

**Political System**
- Power
- Governance
- Citizenship
- Equity

**Anthropologic System**
- Values
- Culture/Milieu

**Information System**
- Access
- Speed
- Fidelity/utility
- Privacy/security
- Storage
Map Systems as Webs

Source: Digital Capital: Harnessing the Power of Business Webs, By Don Tapscott, David Ticoll and Alex Lowy
5. Developing a rapid response in the face of a sudden major change or a crisis, like a natural disaster or financial melt-down, exploring real time solutions and generating innovative and helpful interventions for those in need.

- Dealing with high uncertainty, turbulence, turmoil, high stakes, and often conflict.
ROMEO DALLAIRE
FORCE COMMANDER OF THE UN ASSISTANCE MISSION TO RWANDA, 1993-1994

SHAKE HANDS WITH THE DEVIL
THE FAILURE OF HUMANITY IN RWANDA

“EXTRAORDINARY, WRENCHING LYRIC POWER.” — MONTREAL GAZETTE

Michael Quinn Patton
Refugee Camps
Taking Emergence Seriously

• Beyond “unanticipated consequences” to genuine openness
Seeing Through A Complexity Lens

“You don’t see something until you have the right metaphor to let you perceive it”. Thomas Kuhn
Complex Nonlinear Dynamics

• **Nonlinear**: Small actions can have large reactions. “*The Butterfly Wings Metaphor*”

• **Emergent**: Self-organizing, Attractors

• **Dynamic**: Interactions within, between, and among subsystems and parts within systems can volatile, changing

• **Getting to Maybe**: Uncertainty, unpredictable, uncontrollable
Getting to Maybe:  
How the World Is Changed

- Frances Westley,
- Brenda Zimmerman
- Michal Quinn Patton

- Random House Canada, 2006

Wise executives tailor their approach to fit the complexity of the circumstances they face.
Conceptual Options

- Simple
- Complicated
- Complex
Situation Analysis Matrix: Mapping the Territory
Simple Space
The recipe is essential

Recipes are tested to assure replicability of later efforts

No particular expertise; knowing how to cook increases success

Recipes produce standard products

Certainty of same results every time
Technically Complicated

Agreement

Close to

Far from

Simple
Plan, control

Close to

Certainty

Far from

Technically Complicated

Experiment, coordinate expertise
Simple
Following a Recipe

Complicated
A Rocket to the Moon

• Formulae are critical and necessary

• Sending one rocket increases assurance that next will be ok

• High level of expertise in many specialized fields + coordination

• Rockets similar in critical ways

• High degree of certainty of outcome

Complex
Raising a Child

The recipe is essential

Recipes are tested to assure replicability of later efforts

No particular expertise; knowing how to cook increases success

Recipes produce standard products

Certainty of same results every time
Socially Complicated

Socially Complicated

Build relationships, create common ground

Close to

Agreement

Far from

Simple
Plan, control

Technically Complicated
Experiment, coordinate expertise

Close to

Far from

Certainty
Socially complicated situations pose the challenge of coordinating and integrating many players.
Know When Your Challenges Are In the Zone of Complexity

- **Simple**: Close to, Close to
  - Plan, control

- **Socially Complicated**: Far from, Far from
  - Build relationships, create common ground

- **Technically Complicated**: Far from, Close to
  - Experiment, coordinate expertise

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The recipe is essential

Recipes are tested to assure replicability of later efforts

No particular expertise; knowing how to cook increases success

Recipes produce standard products

Certainty of same results every time

Sending one rocket increases assurance that next will be ok

Rockets similar in critical ways

High degree of certainty of outcome

Formulae have only a limited application

Raising one child gives no assurance of success with the next

Expertise can help but is not sufficient; relationships are key

Every child is unique

Uncertainty of outcome remains
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<thead>
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<td>- Separate into parts and then coordinate</td>
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COMPLEX
Cause and effect are only coherent in retrospect and do not repeat
Pattern management
Perspective filters
Complex adaptive systems
Probe-Sense-Respond

KNOWABLE
Cause and effect separated over time and space
Analytical/Reductionist
Scenario planning
Systems thinking
Sense-Analyze-Respond

CHAOS
No cause and effect relationships perceivable
Stability-focused intervention
Enactment tools
Crisis management
Act-Sense-Respond

KNOWN
Cause and effect relations repeatable, perceivable and predictable
Legitimate best practice
Standard operating procedures
Process reengineering
Sense-Categorize-Respond

Wise executives tailor their approach to fit the complexity of the circumstances they face.
Wise evaluators tailor their approach to fit the complexity of the circumstances they face.
5 Types of DE

1. Ongoing development and adaptation
2. Preformative evaluation to support exploration and innovation
3. Supporting local adaptation of general principles to navigate top-down and bottom-up forces for change
4. Evaluating major systems change
5. Evaluating in turbulent, disaster situations
What role can evaluation play with complex dynamic innovations?
Challenge:

Matching the evaluation process and design to the nature of the situation:

Contingency-based Evaluation
I evaluate; therefore, I am.
References


Getting to Maybe: How the World Is Changed?
Frances Westley, Brenda Zimmerman, Michael Q. Patton, Random House Canada, 2006

Utilization-Focused Evaluation, 4th ed.,