Logic Models: Uses, Limitations, Links to Methodology and Data

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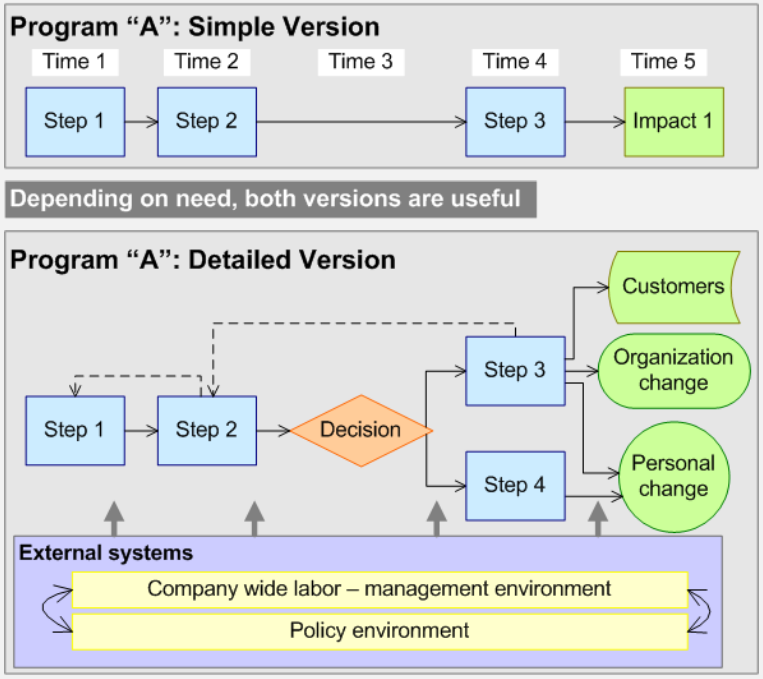

Game plan for workshop

Part 1: Introductions

Part 2: Setting expectations

Part 3: Logic models – nature, content, use

Part 3a: (Bonus section) Model Forms, Program Theory, And Unexpected Behavior: What Are the Implications For Program Implementation and Evaluation?

Part 4: Jointly optimizing readability and information richness

Part 5: Developing and using logic models for maximum advantage

Part 6: Discussion: How did this workshop affect your thinking about evaluation?

Part 1: Introductions

- What is your professional background?
- Describe briefly the kinds of projects on which you've been working in the past year
- If you could evaluate any program you wanted, using and methods you wanted, what would you choose?
- Are there any types of programs or program content areas that you would try to avoid evaluating if you could pick and choose your assignments?

Part 2

Setting Expectations

- Mine
- Yours
- Why should we know more about logic models than stakeholders ask us for?

Mine: At the end of this workshop participants will know:

- What an evaluation logic model is
- How to build a logic model
- How to choose appropriate models – detail, content, complexity
- What logical relationships can be modeled
- Types of information that can be included in a model
- How to use logic models along the whole evaluation life cycle: Initial design to → Report writing
- Connections between logic models and data, methodology, and knowledge use
- Using form to affect the trade-off of information density and readability
- Limits of logic models
- How to work with stakeholders to develop a logic model

Yours

What is the value of knowing more about logic models than stakeholders want?

- Sometimes evaluators have no choice because “logic models” are reified into a required form
  - Input → throughput → output →outcome → impact
  - If → then statements
    - People are familiar with the form
    - Funders expect or mandate its use
    - It really does work very well in many cases
    - Simplicity and face validity are accessible to people with limited evaluation knowledge
- But there is good reason to go beyond the common form
  - Sometimes we do have choices about the forms of our models
  - Practice what we preach. Conceptual use is valuable even when instrumental use is limited
  - Trap of defining the construct by a particular operational definition precludes opportunity for improvement
  - In depth understanding of logic models teaches us something about evaluation even if we never made a model
- Multiple versions are useful

Part 3

Nature, Content, and Use

- What is a model?
- Why are models always incomplete?
- What is a logic model good for?
- How can logic models be made to reflect the state of our knowledge?
- Why are logic models as a form of technology?
- What can be in a logic model?
- Where can information for logic models come from?
- Why is it useful to use different forms of a model for the same program?
- What are the different uses for logic models over a program's life cycle?
- Why and how can logic models change over time?
- How do logic models relate to metrics and methodology?
- What won't logic models tell us and when are they not needed?

Quick Overview:

- Draw a picture or construct columns of words that describe the program
- Use the picture or words to guide evaluation and work with stakeholders
- The rest of the day is commentary

Models and evaluation logic models

What is a model?

A model is an abstraction designed to identify important elements and relationships within a system

What is an evaluation logic model?

- A model to understand relationships between program activities, its consequences, and its environment
- *Usually* a picture that addresses any or all of three questions
  - If a program works as intended, what will be different? (Summative evaluation)
  - What does it take for a program to work as intended? (Formative evaluation)
  - What is needed to sustain a program after start-up? (Sustainability evaluation)
- Represents views (consensus?) of some (all?) stakeholders
- Work in progress, evolves with program, evaluation findings

Incompleteness and error: The system behavior view

- Because a deterministic model cannot fully specify an open system, logic models are always incomplete approximations
- Model stability often depends on a careful balance among several factors. Small perturbation in any one can causer major change in the system
- Error potential increases with:
  - Length of causal chains
  - Number of feedback loops
  - Network richness (nodes:edges)
  - Accuracy of assumptions (e.g., does an element really belong in the model? Is there really a feedback loop? Does “A” really cause “B”?)
  - Program’s departure from previous solutions
    - Small change + proven program + known setting vs.
    - Innovative program + innovative solution + novel setting
    - Rate of change in program or its environment

Incompleteness and error: The domain expertise view

- Reasonable people may think of program theory by drawing on different experience and bodies of research
- Can we really say who is right?
- Is there much likelihood that any of them will get it completely right?
- Do we really think all these people will have the same program theory, thus driving the same methodologies and metrics?

	Some Perspectives for Framing an Evaluation				
	Economics	Political Science	Anthropology	Liberal	Conservative
Program advocate					
Program skeptic					

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	Some Intellectual Lenses for Evaluation Design and Data Interpretation						
	Economics	Political Science	Anthropology	Liberal	Conservative	Program Advocate	Program Skeptic
Methodology							
Metrics							

If logic models are always wrong, why do we make them? Because they are usually good enough to help guide practical action.

Who is a logic model good for?

- For evaluators
  - Organize data
  - Understand how the program works
  - Guide data collection plans (if it's in the logic model, it's a candidate for measurement)
- For stakeholders
  - By starting with an understanding of program logic, stakeholders are prepared to understand results
  - Even knowledgeable stakeholders often gain insight from developing and seeing the model
- Evaluator / Stakeholder relationships
  - Knowledge transfer
  - What will be evaluated
  - Topics to be covered in the analysis
  - Assistance with evaluation implementation
- Promote understanding
  - Causal
  - Explanatory

What is a logic model good for?

- Description
  - Can we help stakeholders characterize their processes, activities and results?
- Explanation
  - Context specific set of relationships that provide a way of understanding an event.
  - Example: How to understand a plane crash?
    - Weather
    - Human error – training, knowledge, individual judgment
    - Technology – warning systems, automatic error compensation
    - Some combination of all three?
  - None of these is “correct” or “incorrect”
  - Each provides a different framework for understanding and policy decisions – Which framework provides each stakeholder group with the most choice for effective change?
- Prediction: Strictly statistical, e.g.
  - If I implement needle exchange will the incidence of HIV decrease?
  - If I provide feedback to drivers on their speed, will they slow down for at least one mile?
  - If I adjust airport landing fees to by time of day, will traffic load smooth out?
  - ***Models can do a good job of explaining the past while being unable to predict the future***
- Causation
  - Is X the reason Y happens?

What is a logic model good for?*

- Causal
  - What are the causes (or at least antecedents) of the problem targeted for intervention?
  - Assures that the program addresses important factors involved in the targeted problem
- Conceptual
  - Principles of action for the intervention
  - How the intervention will affect the problem
  - Not all causes or antecedents need to be targeted
- Operational
  - Links between resources, activities, and objectives

* Thanks to Astrid Brousselle (Astrid.Brousselle@USherbrooke.ca) for this idea.

Visual form of logic model should reflect what we know and what we can do

- We need to be honest about what we know and do not know.
  - Every element of a model is a hypothesis that can be wrong.
  - Error compounds.
- Are we able to evaluate at that level of complexity and detail that we have constructed?
  - Do we have methodologies and metrics?
  - Even if we could do the analysis, can the program be explained by the sum of its parts?
  - Are there at least sections of the model that can be explained at that level of detail?

Maybe honesty is the best policy

If stuff happens here

Operations	Activities	Outputs	Outcomes	Impact
Legislation	Rulemaking	Rules	Reduced defects	Reduced fatalities
Funding	Inspection	Reports	Reduced failures	Reduced industries
Industry	Enforcement	Penalties	Limited propagation	Less environmental harm
Industry standards	Investigation	Information		Less property loss
State programs	State grants			Reliable delivery

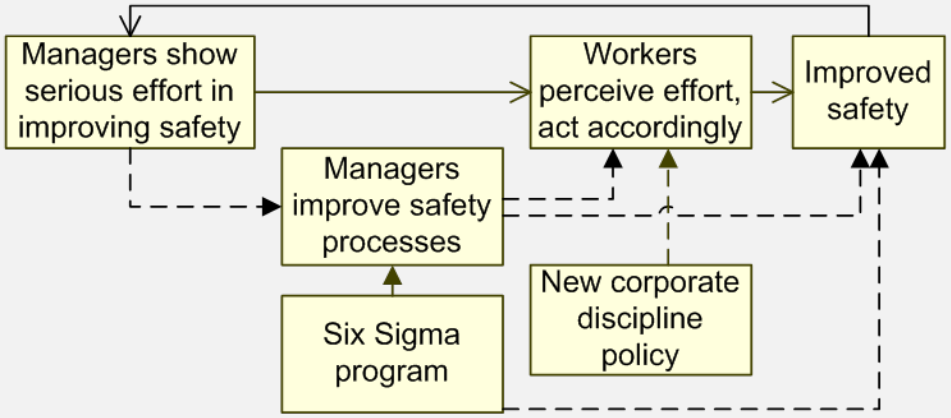
Stuff will happen here

Reconfiguring logic models in light of what our

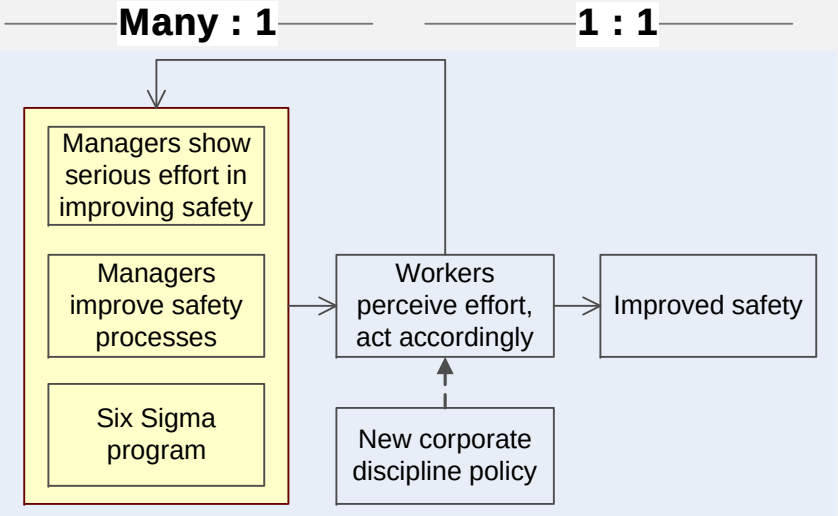
- metrics and
- methodologies

will allow us to do.

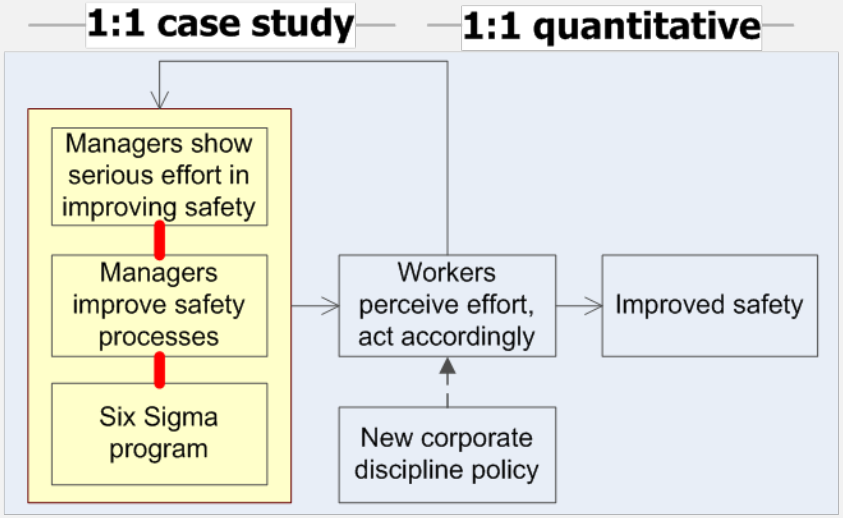
Do we believe we can specify and assess all the 1:1 relationships in this model?



Maybe we should admit defeat and settle for some 1:many relationships.



Or, expand our range of methodologies and try for all the 1:1 relationships.



Logic model builders need a technological mindset to maximize the value of their work*

"The aim of technology is to be effective rather than true, and this makes it very different from science".

Evaluative / technological perspective

- Theory to guide practical action
- Embrace real world noise
- Priorities determined by need for decisions
- Emphasis on confirmation
- Emphasis on efficiency and effectiveness
- What can make a difference in real world settings

Scientific / research perspective

- Theory to model and discover truth
- Eliminate real world noise
- Priorities determined by ability to expand knowledge
- Emphasis on refutation
- Emphasis on investigating reality, enlarging knowledge
- What can help understand relationships or describe nature

* Evaluation as social technology
www.jamorell.com
www.jamorell.com/documents/chap_5.pdf

What can be in a logic model?

- Feedback loops
- Verbal description
- Outside influences
- System boundaries
- Stakeholder priorities
- Timeline for observation
- Estimates of measurement feasibility
- Relationships among program elements
- Program content , process, and structure
- Guess as to whether parts of the model are correct
- Any other useful information

What kinds of relationships can a logic model show?

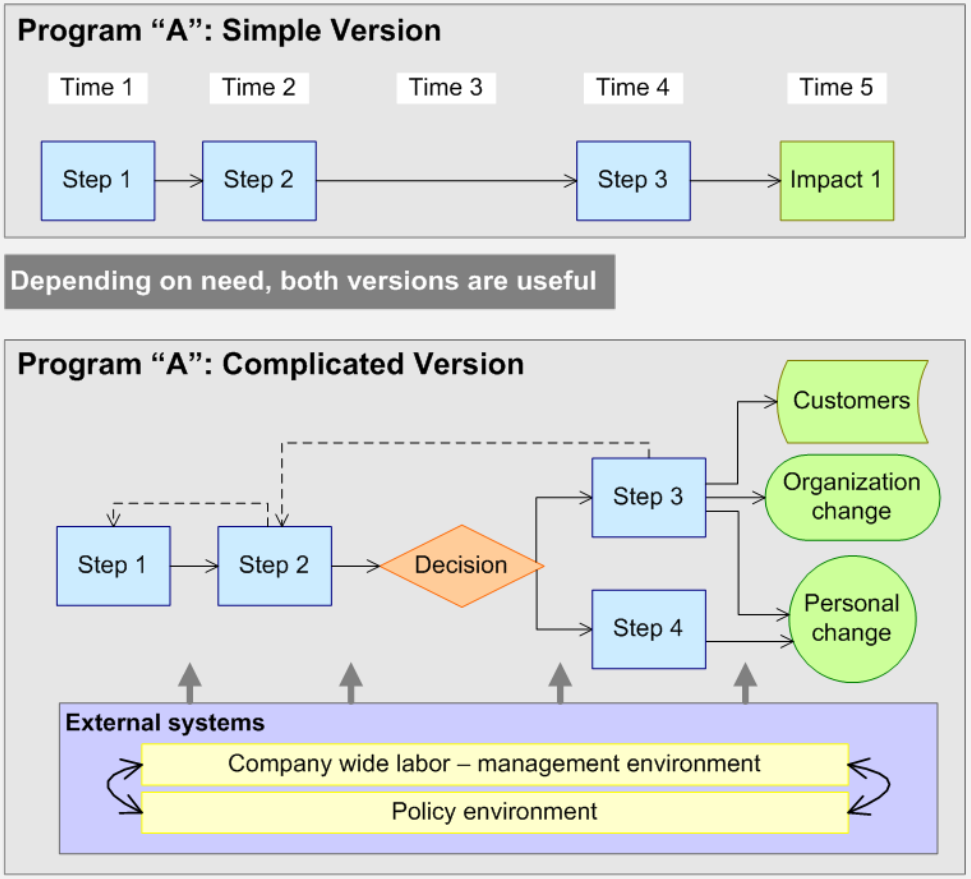
- 1 : 1
- 1 : many
- Many : many
- Precedence
  - A before B
  - A & B simultaneously
  - Agnostic with respect to precedence

Sources of input to logic model

Source	Strength	Weakness
Stakeholders	▪ Deep appreciation of context ▪ Knowledge of program detail ▪ Vested interest in participation ▪ Sets groundwork for evaluation implementation	▪ Lack of perspective, may have strong **+** or **–** feelings ▪ Vested interest ▪ Not likely to have insight from comparable efforts ▪ Not likely to have insight from research literature
Critics	▪ More complete / balanced model ▪ Alternate program theories	▪ Hard to recruit ▪ Those who are paying you might resist
Evaluation team	▪ Experience with other programs ▪ Sensitivity to implications for methodology	▪ Lack of domain knowledge
Non-stakeholders familiar with similar programs, & research/ evaluation literature	▪ Objective ▪ Knowledge not known to stakeholders	▪ Blind to context and specifics

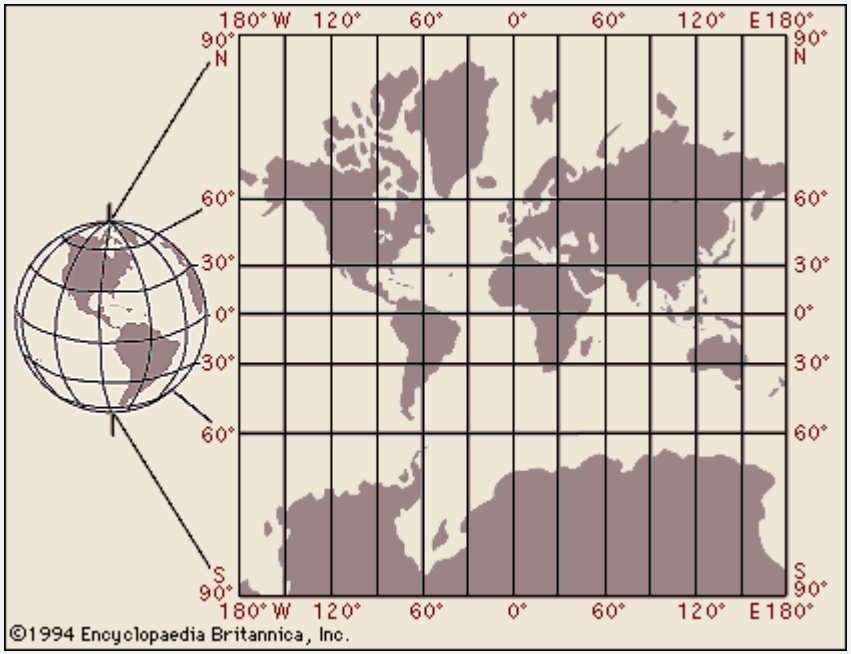
Depending on use, logic models can be simple or complicated

- Scale and complexity of program
- Diversity of information needed to design the evaluation
- Number of
  - Elements represented
  - Systems represented
  - Nested models of different scales
  - Feedback loops
- The same evaluation might need multiple versions, e.g.
  - Technical development vs.
  - Explanation to outsiders

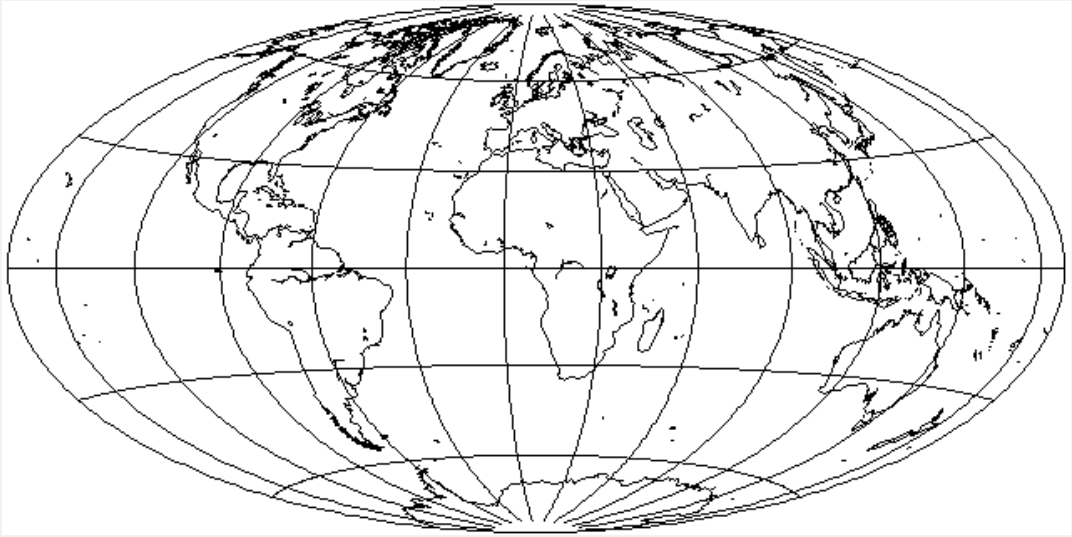


Different versions for different reasons

Areas get larger with distance from equator, but straight lines are rhumb lines, you can use the map to navigate. (Mercator)

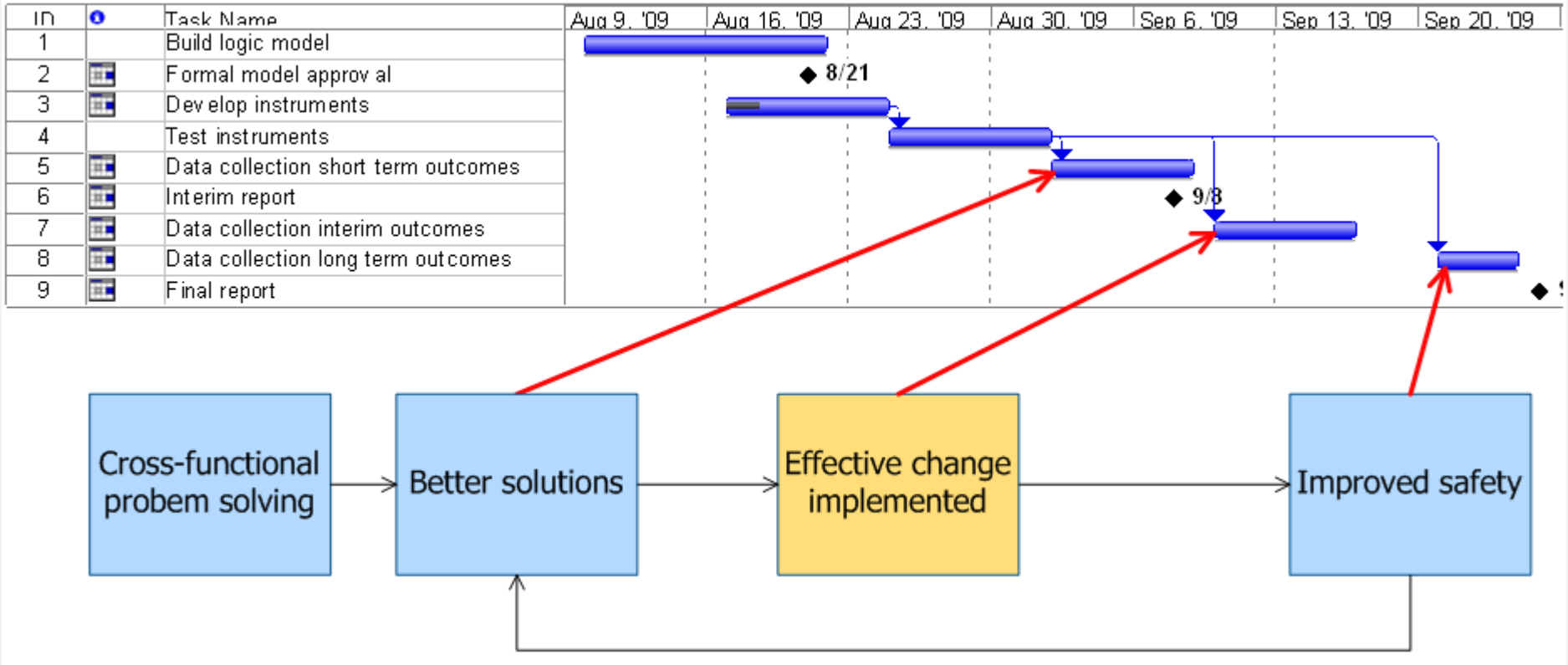


Areas are correct with respect to each other, but charting courses is problematic. (Hammer – Aitoff)

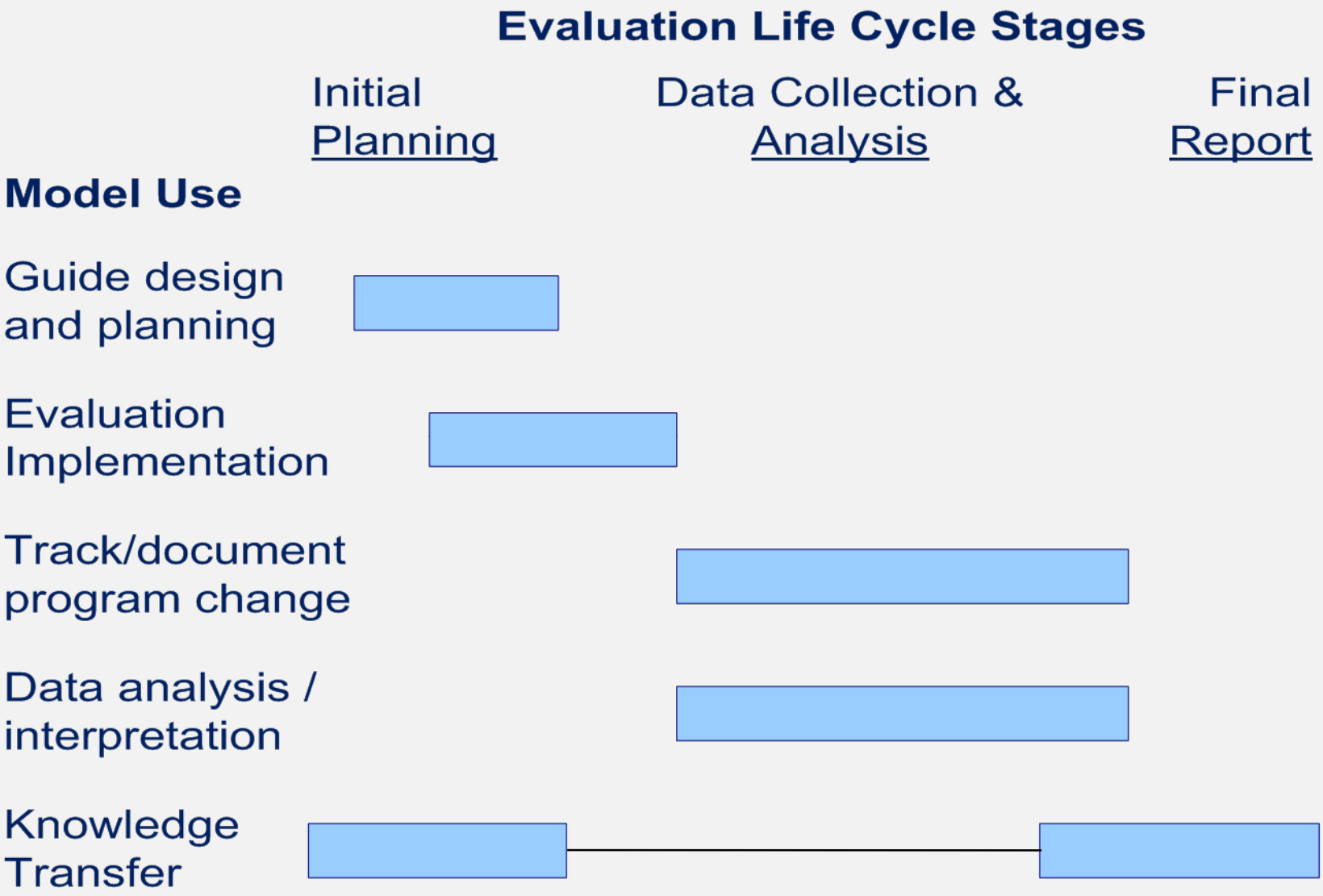


Different Ways to Model an Evaluation can be Complementary

- Project plan and logic model
  - Do not match 1:1
  - Should *not* match 1:1 because they serve different purposes
- But mapping the overlap increases ability to
  - Work with stakeholders
  - Manage the evaluation



Uses of logic models over the evaluation life cycle



Logic model can change over time

- New stakeholders
- New stakeholder needs
- Bad management or process control
- Emerging connections among related programs
- Change in program e.g., new staff mix, funding, clients, services
- Findings may change views of program, e.g., Culture change happens earlier than expected
- But keep the old ones. Tracking the evolution is good data in its own right

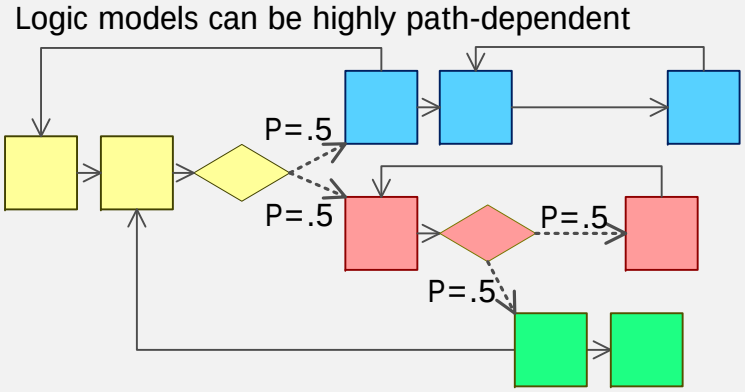
Development paths can change

The **Kalamazoo Promise** is a pledge by a group of anonymous donors to pay up to 100 percent of tuition at any of Michigan's state colleges or universities for graduates of Kalamazoo's public high schools.

What might happen when a program like this is unleashed?

One possibility :

- Rotary Club starts a program to work with the parents of school age children
- Tutors detect mental health issues
- Cooperative arrangement pop up between the mental health system and the schools.



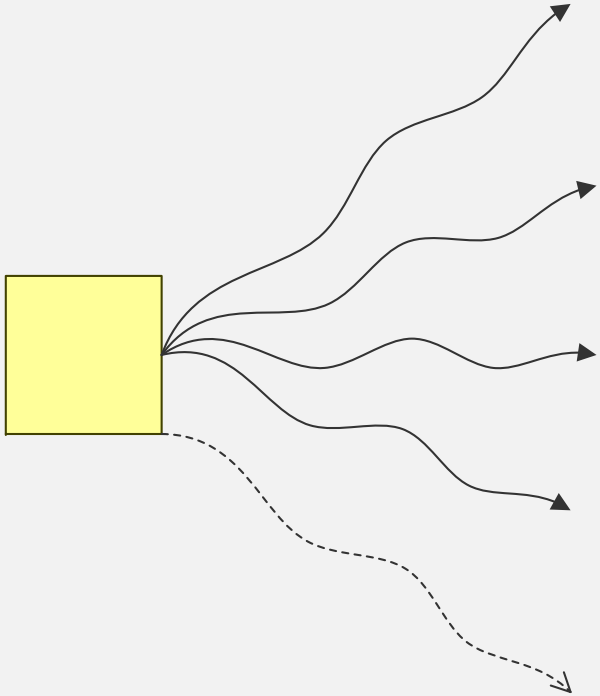
- Many other innovations are bound to arise
- Each may depend on what went before
- Connections among some/many of them will further change the landscape of possibilities
- Possibilities are limitless and unpredictable

Except at the highest and most abstract level, it is *impossible* to develop an a priori logic model

Program theory can evolve in type of logic as well as in specific detail

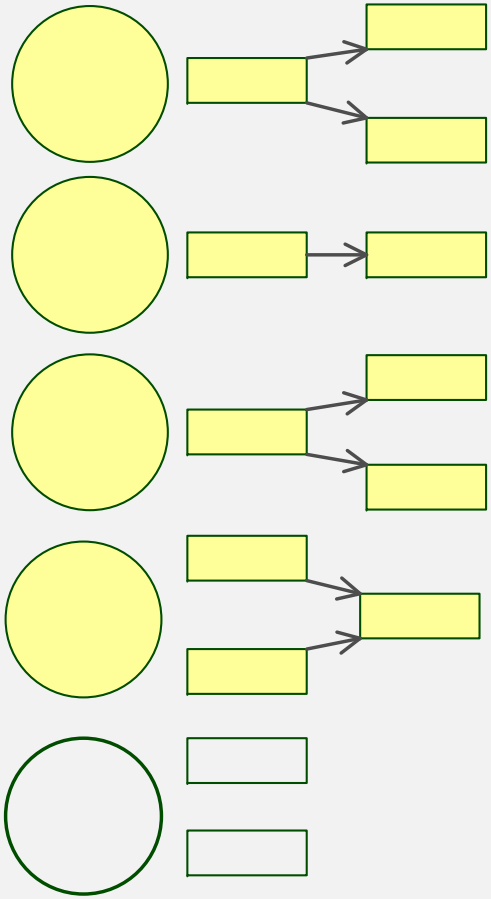
Program theory
- NGO can pick successful grantees
- Maximum discretion to grantees = successful programming

Evaluation question
- Can the NGO pick successful programs?



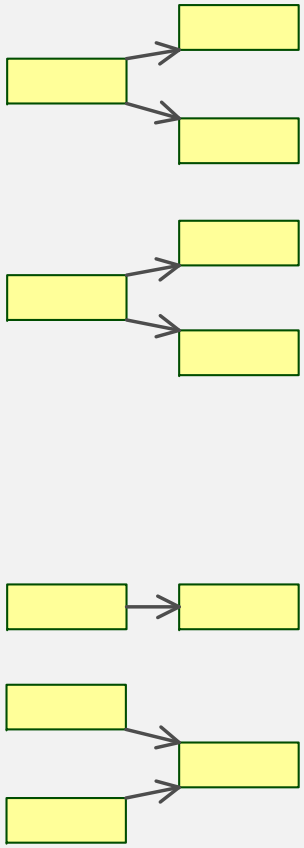
Program theories
- Each grantee has a unique program theory

Evaluation questions
- Which individual programs work?



Program theories
- Similar groups of programs have common operative characteristics

Evaluation questions
- Which groups work?

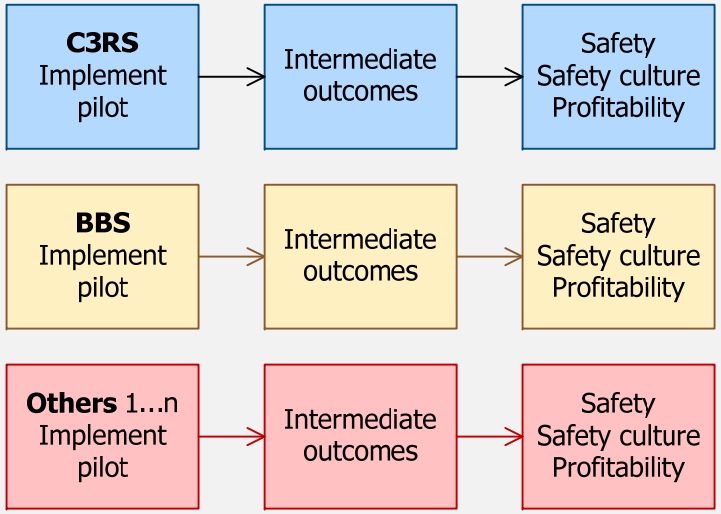


Relationships among programs can develop

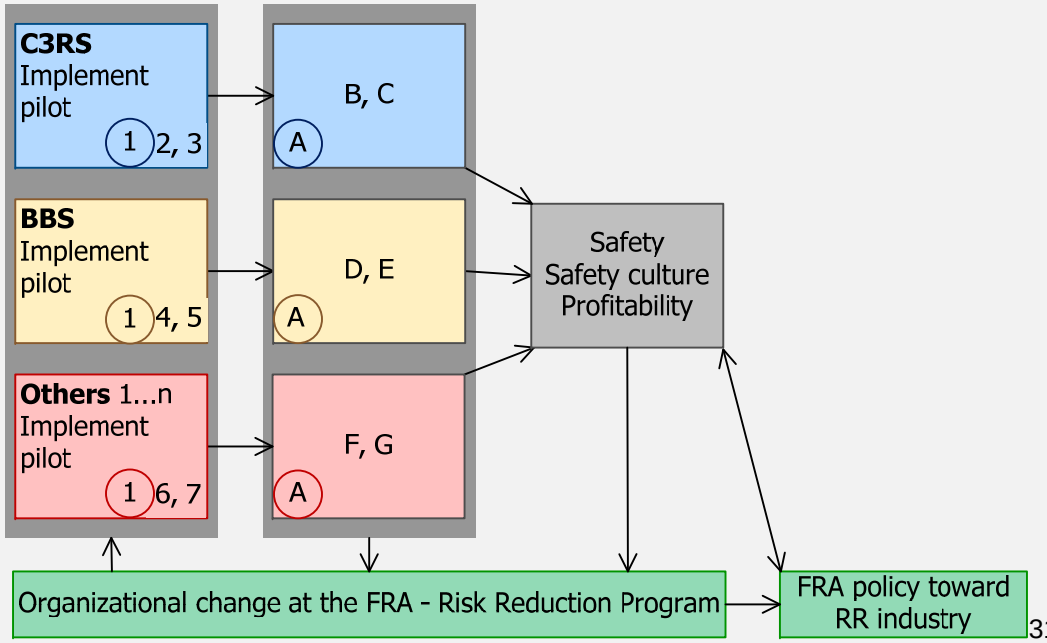
3 separate programs

Some unique intermediate and long term outcomes

Some common intermediate and long term outcomes



Combine to have consequences not likely to derive from any one alone.



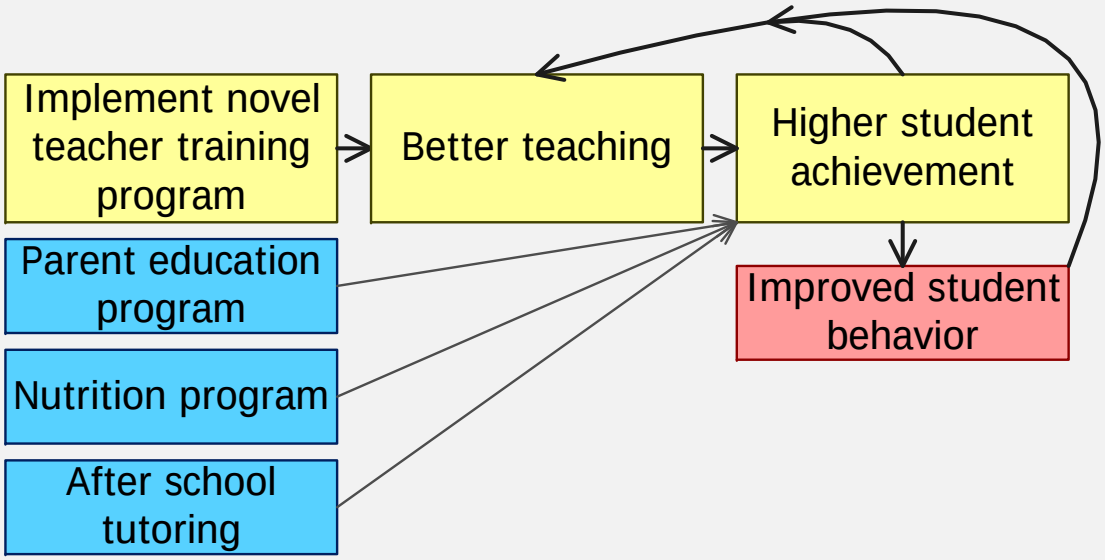
How do logic models relate to other elements of evaluation?

Metrics – what gets measured?	Identify constructs, but usually not at the level of detail needed for measurement
Methodology – what is the logic that allows us to interpret data?	Partially. Patterns in logic model may be a pattern that can be tested
Knowledge transfer – how do we get people to listen to us?	Partially. The model *is* knowledge. Also, stakeholder involvement sets expectations and provides structure.

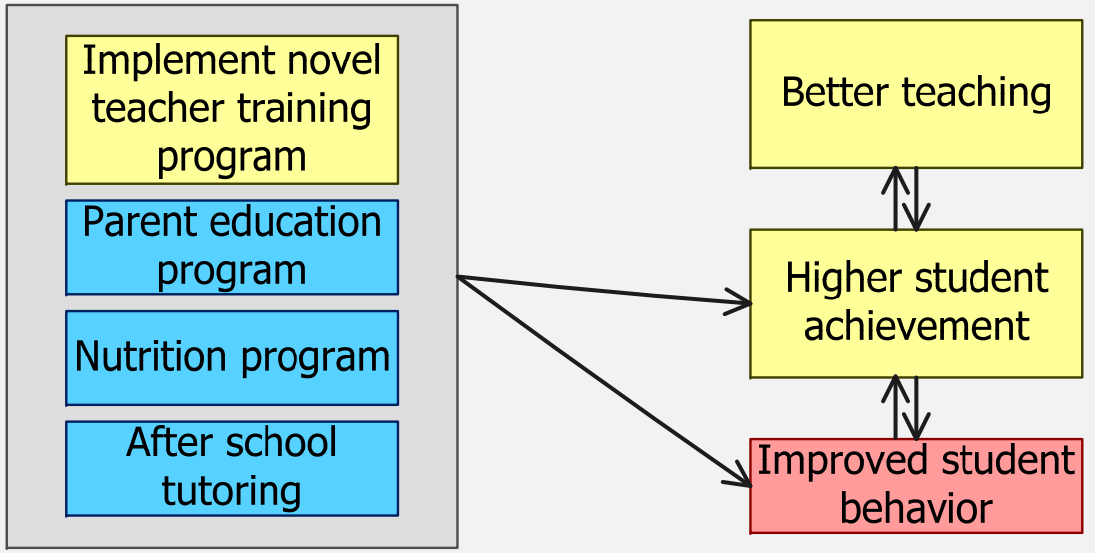
Models and methodology: Example of relationship

Do we have what we need to evaluate a novel teacher training program?

- Historical data
- Comparison group data
- Knowledge if implementation schedules
- Ability to time data collection
- Information on quality of each individual program?



Maybe the best we can do is to test this model instead.



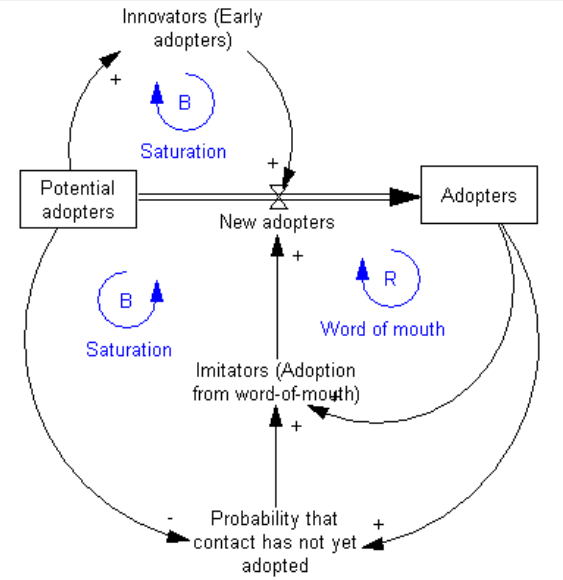
Sometimes logic models can be the design

If a complicated pattern is validated, it's reasonable to assume causation even without comparison groups.

1. Model validated, reasonable to assume program brought about desired results
2. Program theory is wrong
3. Program theory wrong, but something went right
4. Nothing went right

	Program outcomes achieved?	
Logic model validated?	**Yes**	**No**
Yes	1	2
No	3	4

If a simulation is involved, the logic model defines the methodology



But logic models do not tell us

- What mix of cases to pick
- What comparison groups to use
- When or how to triangulate from multiple sources of data
- Over how long a period to map pre-implementation trends
- When/how to make cross group and within group comparisons
- Number and length of post-treatment follow-up data collections

How to handle unanticipated program change?

- Continuum from change
  - That is somewhat foreseeable but not foreseen →
  - Change that cannot be anticipated
- Research literature, experience with similar programs and diverse expertise can reveal likely (possible) program behavior
- Program monitoring can increase lead time for detecting impending change
- Evaluation designs can be made more agile
- The way in which logic model revision is built into the evaluation change process can help to detect unanticipated events and to adjust evaluation designs
- *Evaluation in the Face of Uncertainty: Anticipating Surprise and Responding to the Inevitable* Guildford Press, 2010

Do you need a logic model?

- Would the evaluation get better or worse if we did NOT have a logic model?
- Consequences (positive or negative) for other aspects of the evaluation:
  - Metrics
  - Methodology
  - Knowledge transfer to stakeholders
  - Ability to successfully implement and carry out the evaluation
- Costs and benefits
  - Do we have resources to build a model that would truly improve the evaluation?
  - Time to develop the model given the schedule needed to begin data collection?
  - If we develop the model late, will having it help anyway?
  - What else could be done with the time, money, and labor?

Programs for which logic models are not appropriate

- Very stable programs with simple program theory
- Program is deliberately poorly specified, i.e.
  - Rapid prototyping – continual testing and revision approach to program design and implementation
  - Continuous improvement rapid cycling of evaluation
- Models imply program stability. Programs may be unstable
  - Rapid change in program's environment
  - Formally complex systems -- self organization, phase shifts, etc.
  - Multiple causes, highly networked and cross-linked
    - Different combinations of changes among multiple causes can bring about the same change
    - Best plan is to focus on issues that are richly linked, on the assumption that the system will loosen and somehow change

§Part 3a

(Bonus section)

Model Forms, Program Theory, And Unexpected Behavior: What Are the Implications For Program Implementation and Evaluation?

Imagine a program designed to help immigrants improve their literacy skills. Because the program serves to bring immigrants together, a second aspect of the program is to serve as an efficient way of determining immigrants' needs and referring them to appropriate services.

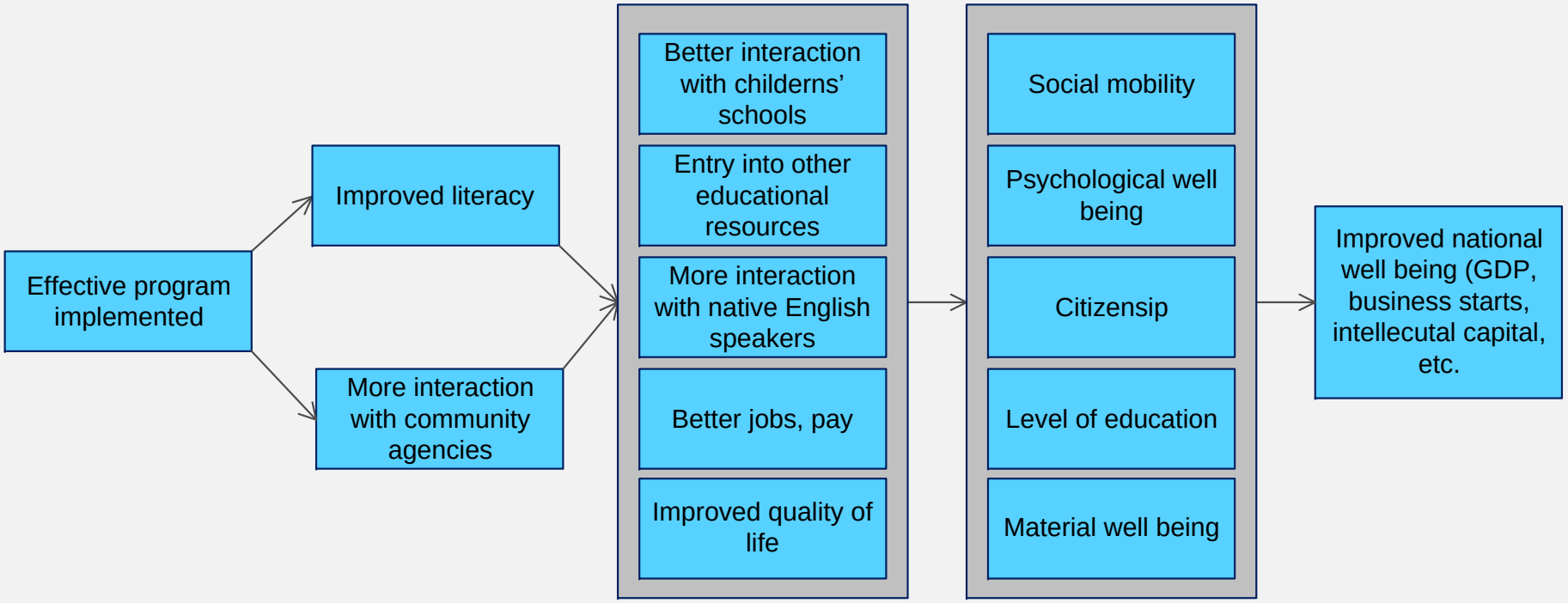
Consider the next 5 logic models for this program. What evaluation methodology should be implemented based on each model? For each logic model, and the methodologies it spawns, what are the implications for:

- time frame needed
- methodologies needed
- hypotheses about program operations
- assumptions about what can be measured
- assumptions about what should be measured
- statement of what we know about how the program really works

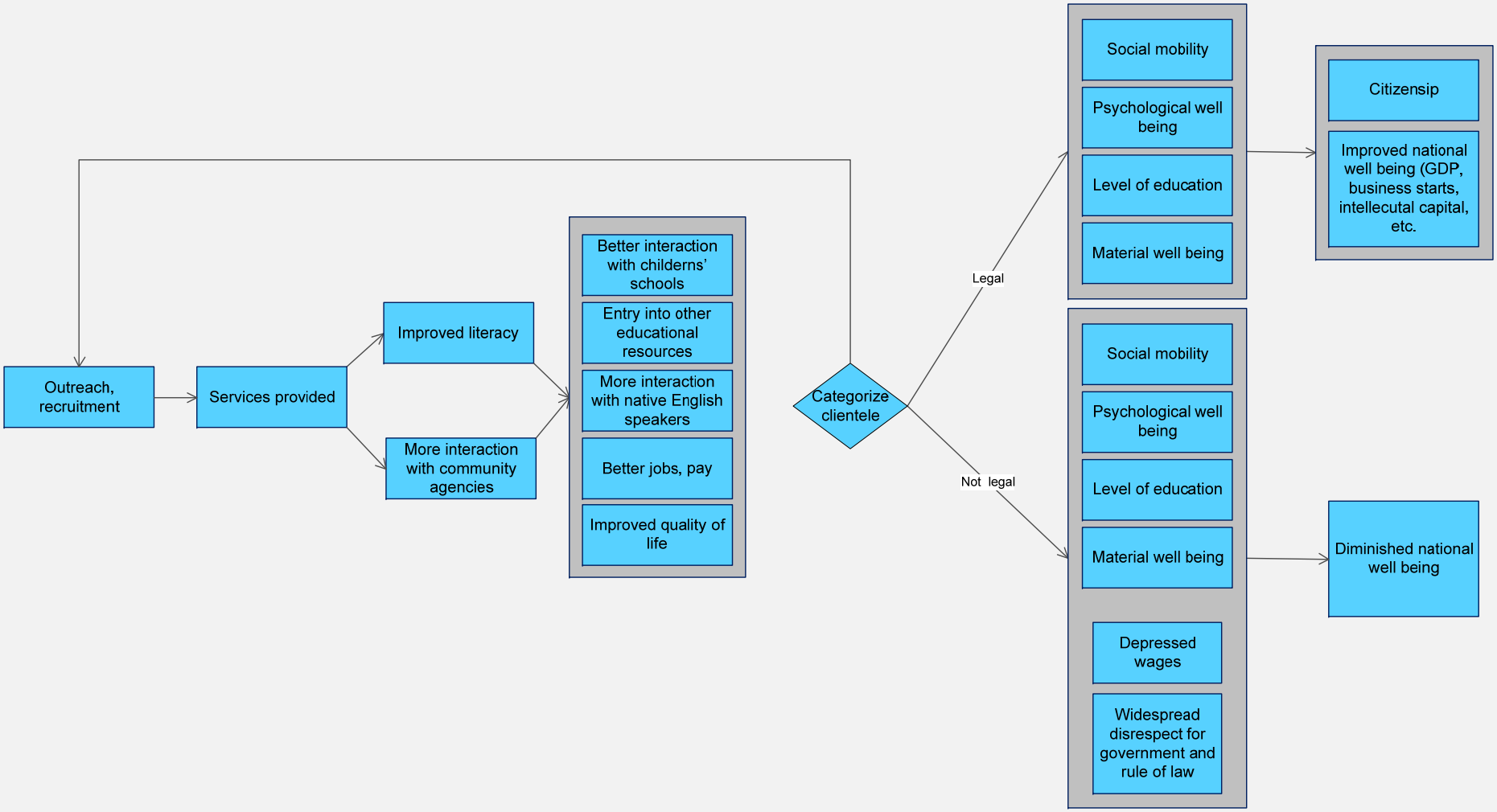
1: Input/throughput/output list

Input	Activity	Output	Short term outcome	Long term outcome
Trained coaches	Literacy classes	Higher literacy levels	Quality of everyday life	Social mobility
Analysis of literacy levels and needs	1:1 literacy coaching	Richer connections with support organizations	Better interaction with children's schools and teachers	Psychological well being
Working relationships with immigrant support organizations	On-line literacy coaching		Entry into other educational programs	Citizenship
Funding	Referral services		More interaction with native English speakers	Levels of education
Curricula and training materials			Better jobs / wages	Material well being
Physical space				Contributions to society and the economy
IT infrastructure				
Multi-lingual outreach staff				

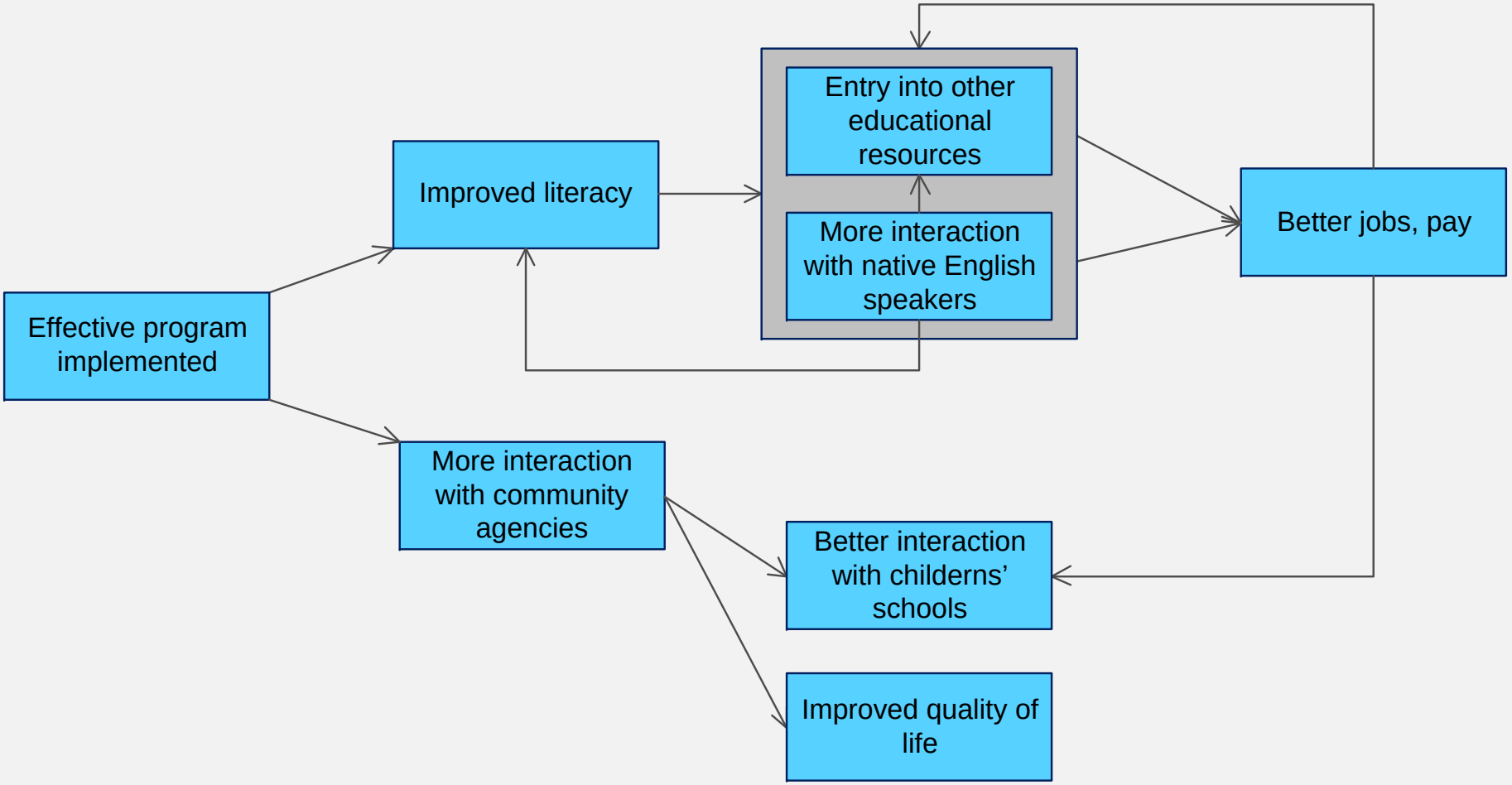
2: Simple flow chart, very long term outcomes



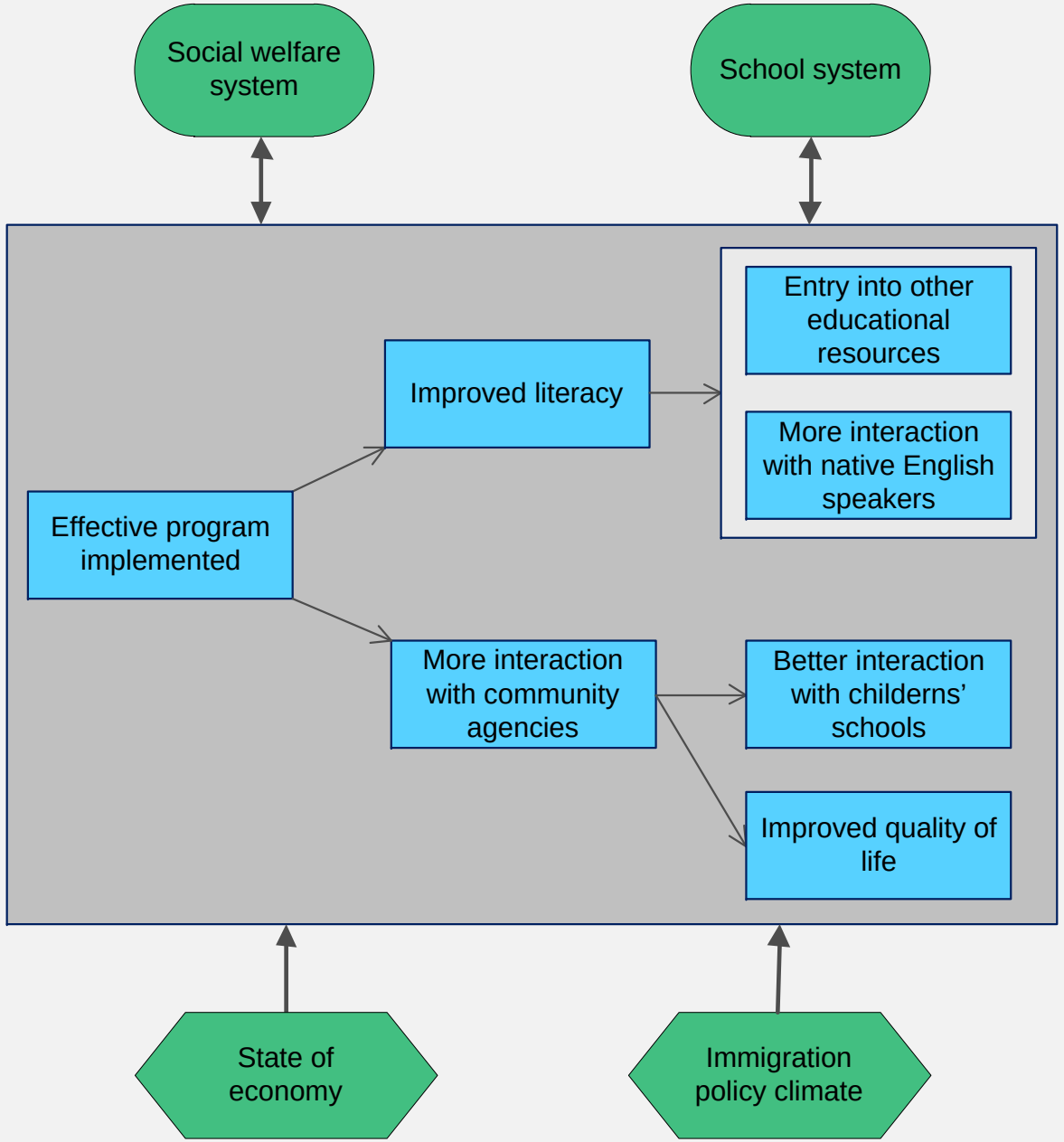
3: Long term outcome, diverse stakeholder input



4: Rich feedback loops



5: System view



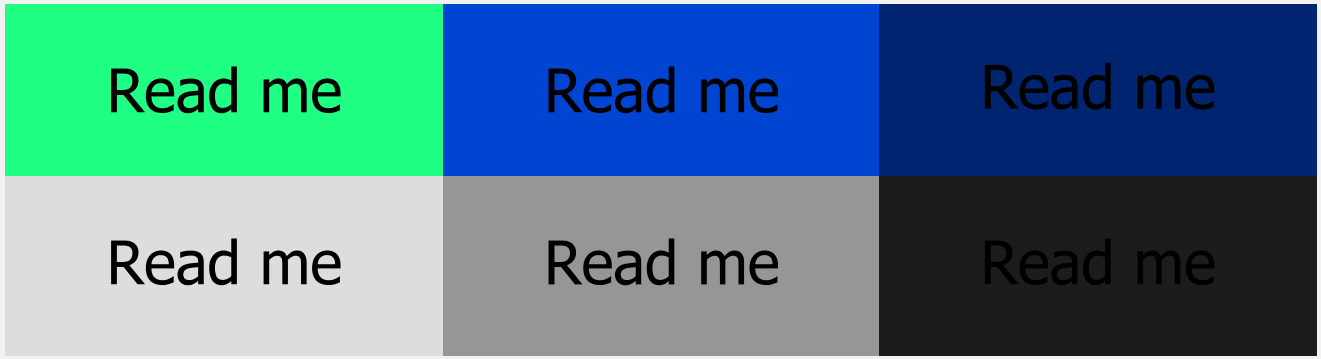
Part 4:
Jointly optimizing readability and information richness

- Color,
- Resolution
- Type style
- Layout

Color characteristics make a difference

Modality makes a big difference in color

Computer screen	Projection monitor
Screen set to • Red 30 • Green 255 • Blue 131	Same color in print reads as • Red 0 • Green 128 • Blue 131

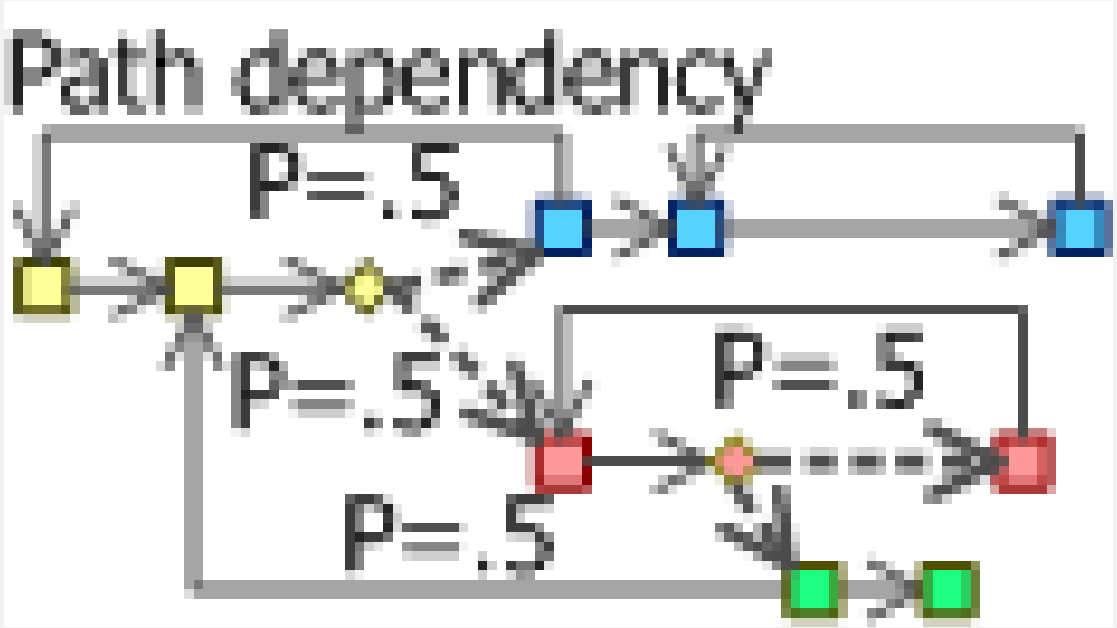


Color saturation can assure that differences show in B&W

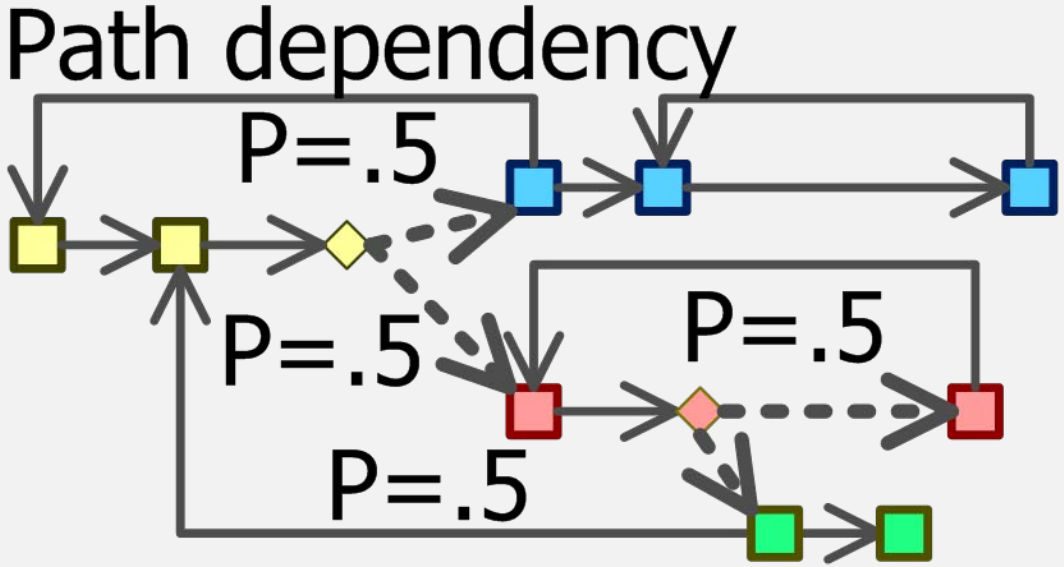
If screen color gets too dark, text is unreadable

File formats matter if you want to print large scale

1 x 2 original as a bitmap



1 x 2 original as a vector graphic



Type characteristics make a difference

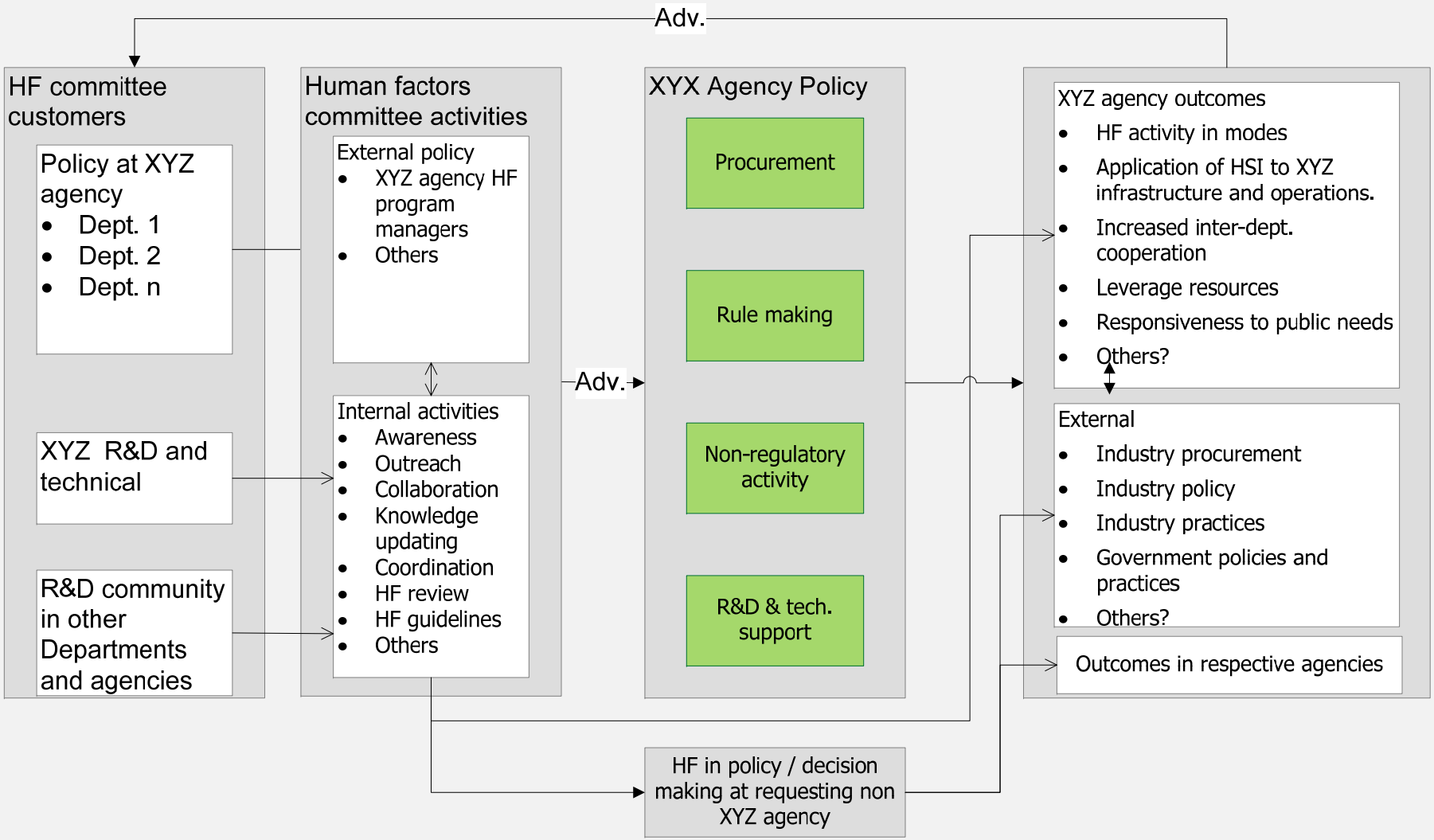
- 11 point
- Serif
- 0 line spacing
- Black lines

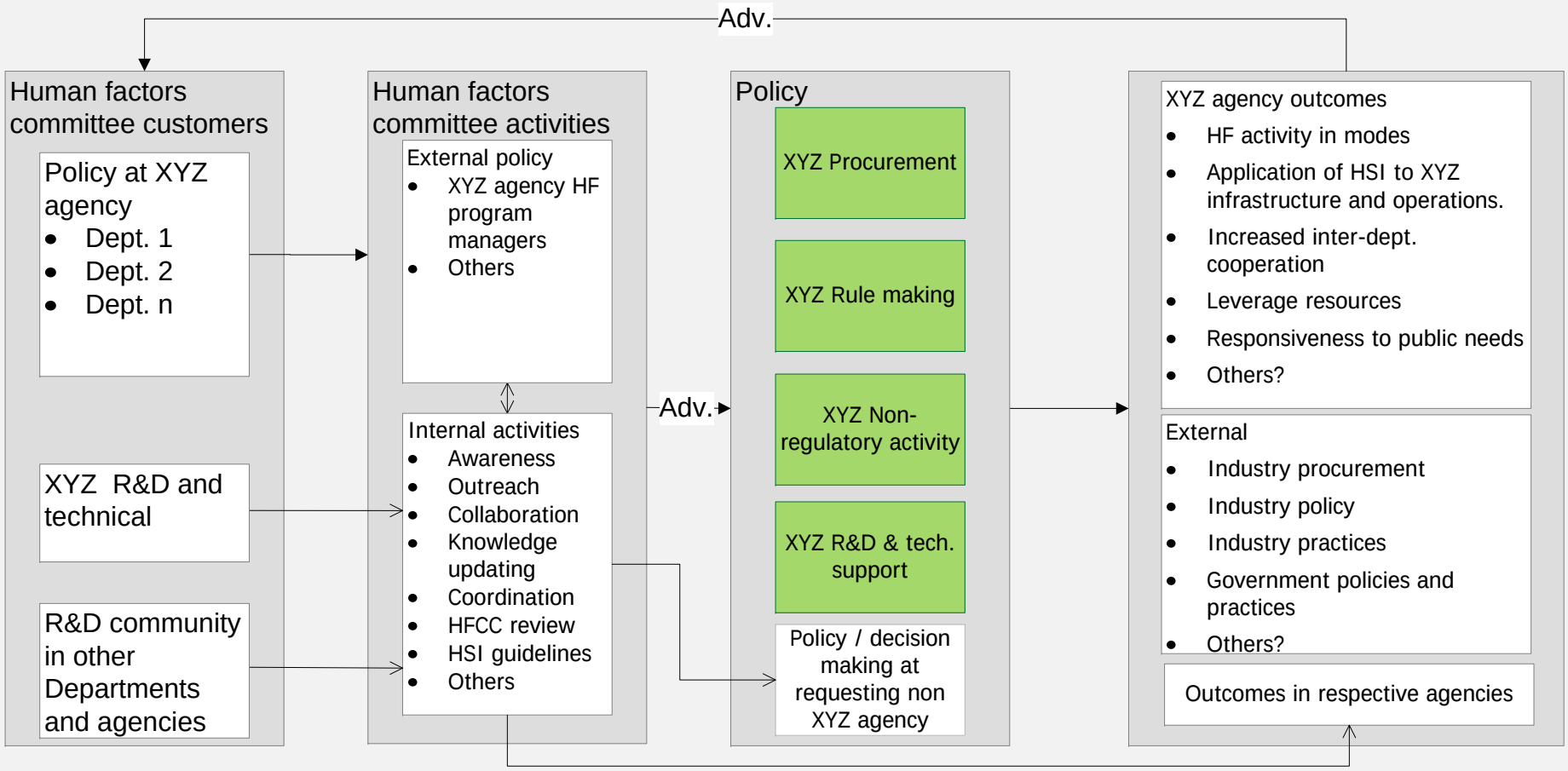
Operations	Activities	Outputs	Outcomes	Impact
Legislation Funding Industry Industry standards State programs	Rulemaking Inspection Enforcement Investigation State grants Evaluation Education	Rules Reports Penalties Information	Reduced defects Reduced failures Limited propagation	Reduced fatalities Reduced industries Less environmental harm Less property loss Reliable delivery

- 11 point
- Sans serif
- 2 point line spacing
- Gray lines

Operations	Activities	Outputs	Outcomes	Impact
Legislation Funding Industry Industry standards State programs	Rulemaking Inspection Enforcement Investigation State grants	Rules Reports Penalties Information	Reduced defects Reduced failures Limited propagation	Reduced fatalities Reduced industries Less environmental harm Less property loss Reliable delivery

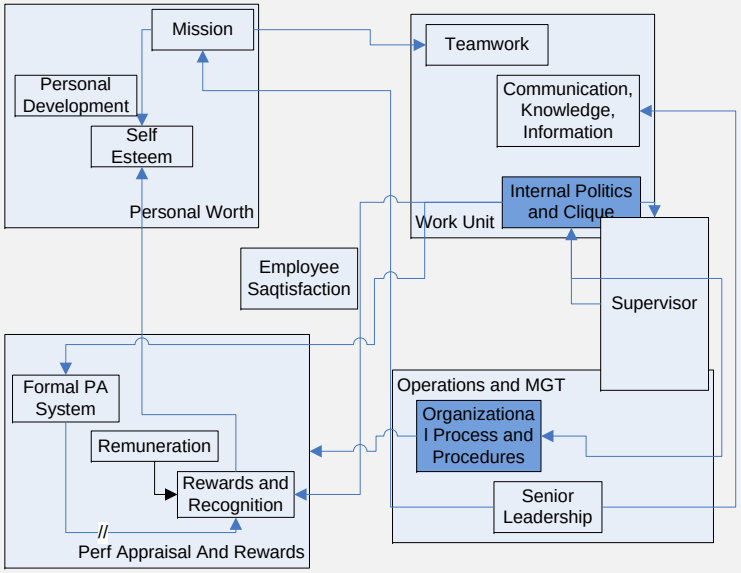
Subtle changes in content can preserve logic and greatly improve visual presentation



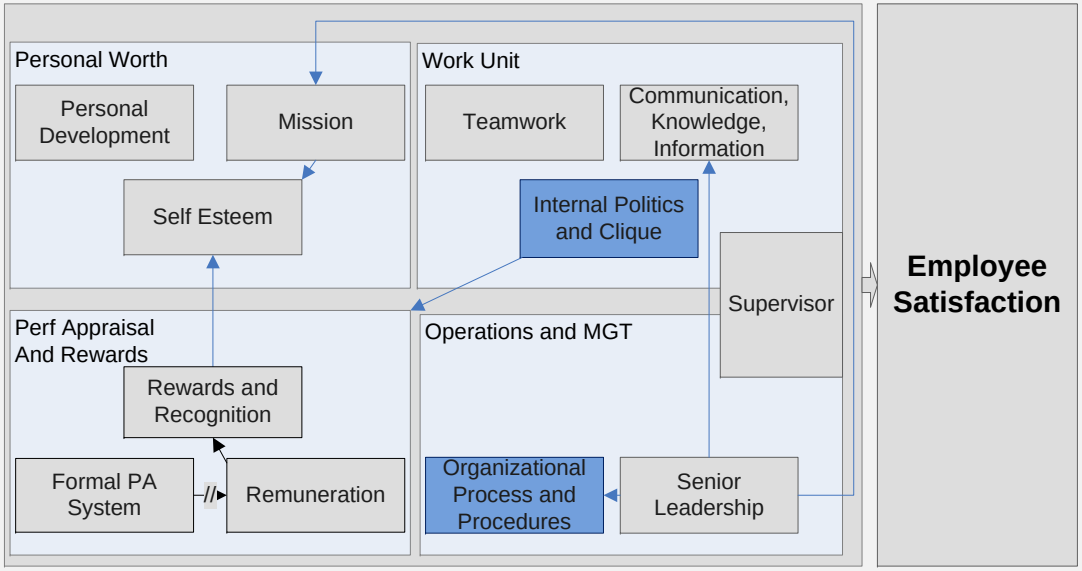


Sometimes the changes are not so subtle

Draft 1: deliberately done quickly to capture the logic



Draft 2: cleaned up for presentation



Guideline for choosing appropriate logic models

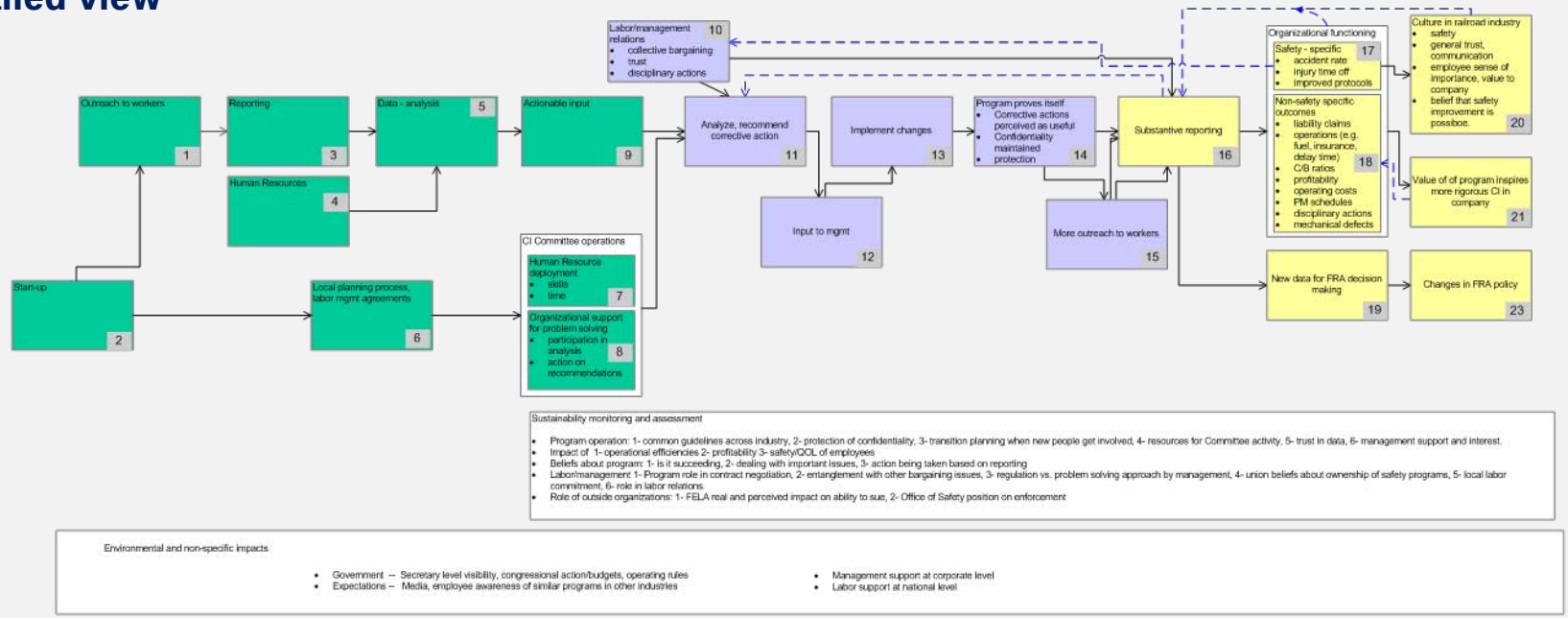
- Logic models are
  - Technology (not science)
  - Must be “good enough” to guide practical action
- “Good enough” usually means simple
- Art to choosing the right level of complexity
  - Overly complex = distracting, wasteful, prone to error
  - Overly simple blinds to possibilities

Let's critique some models, ranging from the garden variety to some exotic species

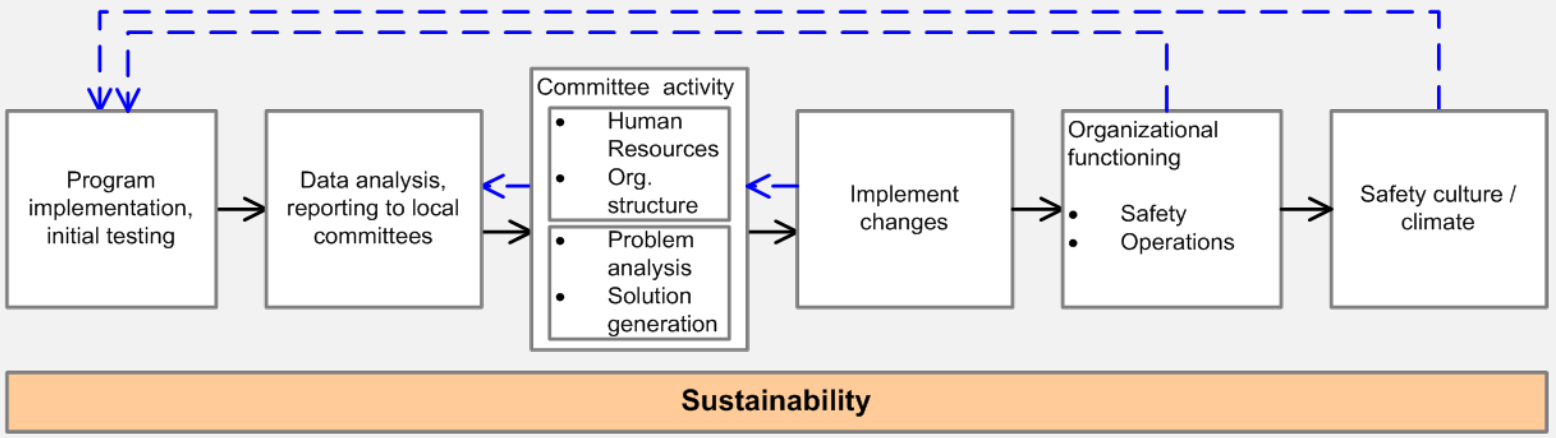
Common problems	Good	Bad	Indifferent
Ink to information? E.g. decoration that does not convey information			
Does the model hold the readers' attention?			
Does the form of the model tell the story that needs to be told?			
Does the model contain the necessary information for its audiences?			
How much explanation is needed for someone to understand the model?			
Are there false distinctions? E.g. different colors or shapes for the same categories			
Spatial relationships of elements – do they reveal or confuse the logic?			
Visual clutter, e.g., intersecting lines that do not have to intersect			
Lack of visual cues for distinctions that matter, e.g., same shape, color, column for short and long term outcomes			
Overall, how does the model "read"?			

Example #1.1: Root cause problem solving innovation in a transportation industry

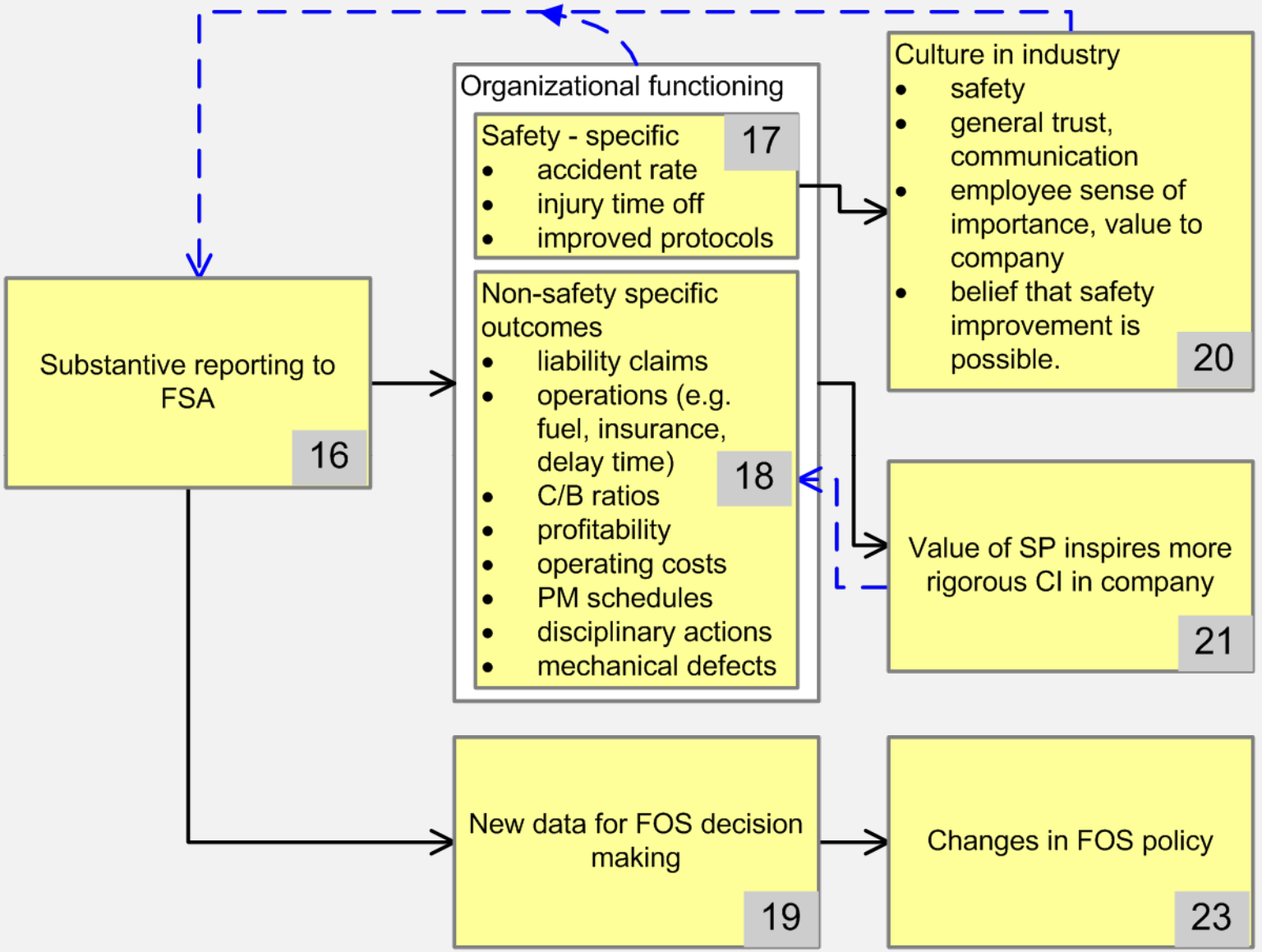
Detailed view



High level view of the same program



Example #1.2: Root cause problem solving innovation in a transportation industry

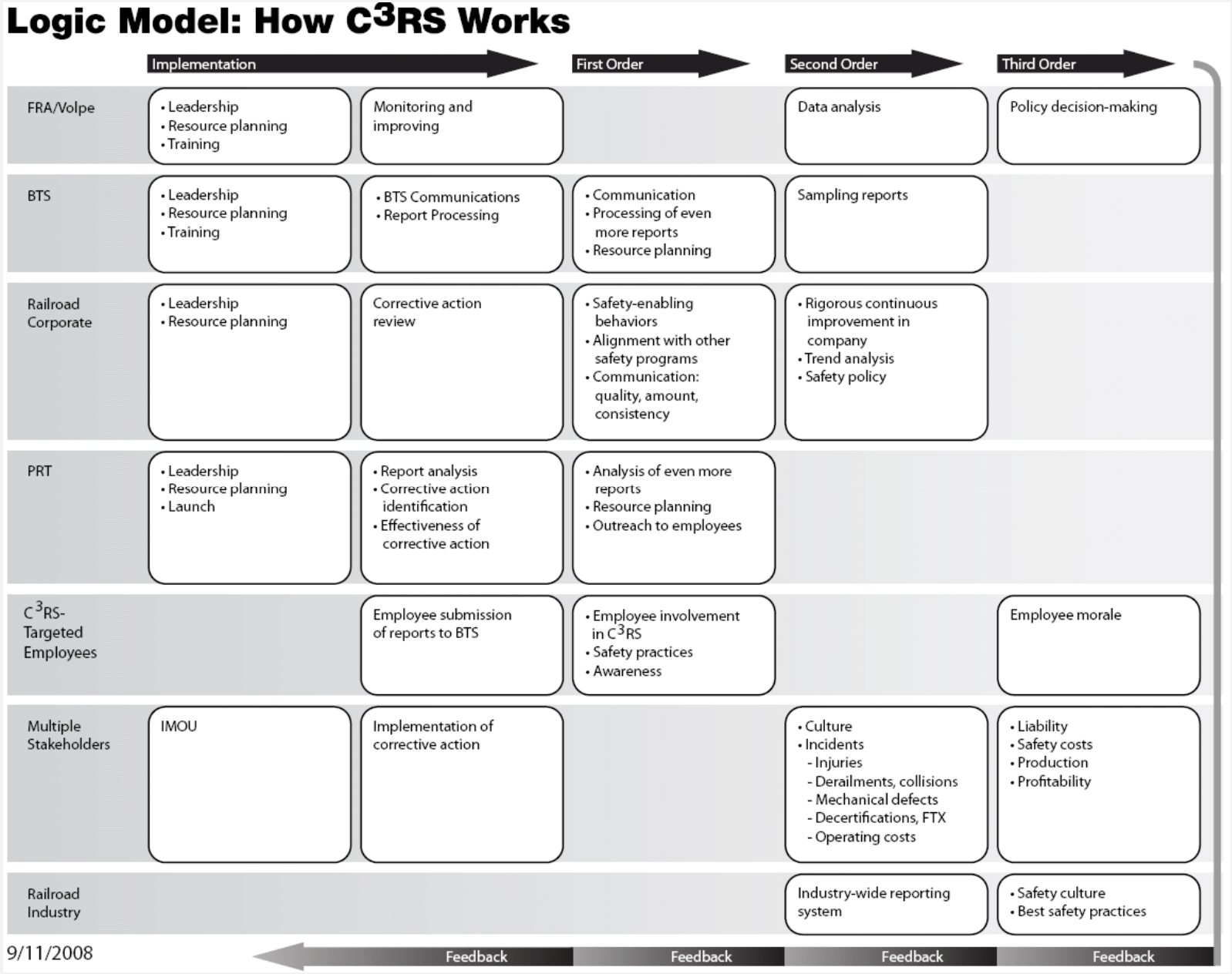


Critique of Example #1 Root cause problem solving innovation in a transportation industry

- Solid vs. dotted arrows clarify feedback loops
- Uses color to distinguish three broad program phases: “process” “employee testing” and “outcome”
- Index numbers to details of measurement procedures
- Color also differentiates gray shading. Visual cues preserved in black and white

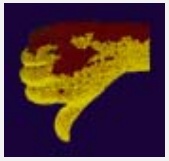
- Inconsistent level of detail
  - “Sustainability” and “environment” are black boxes
  - “Process” less detailed than outcome sections
- No explanation of reason for the color coding
- Small print, only partially offset by blowing up separate parts of model

Example #2.2: Root cause problem solving innovation in a transportation industry



Critique of Example #2 Root cause problem solving innovation in a transportation industry

- Alternate version of the “flow chart” depiction. Shapes and arrows for evaluators, swim lanes for stakeholders
- Works very well in public because it speaks to people’s interests



- Color reproduction in works on screen but not readable in print
- Gray tone version improves on color by keeping distinctions with less contrast differentiation. Easier on the eye. (Try light green, it’s even better.)
- Neither version does very well on readability

Example 3: Input → Impact for a federal regulatory agency

A General Logic Model for Federal Safety Agency's Safety Program

External (Resources, constraints)	FSA (Actions)	FSA (Products)	People/Companies (Behavior)	Pipelines & Product (Physical effects)	Public Impacts (Ultimate value)
Inputs	**Activities**	**Outputs**	**Intermed. Outcomes**	**Outcomes**	**Impacts**
Legislation	Rulemaking	Rules	Compliance	Reduced # defects	Reduced public fatalities
Funding	Inspection	Reports	State activities	Reduced # leaks/failures	Reduced public injuries
Industry	Enforcement	Penalty assessments	Functioning one-call systems	Limited propagation	Reduced environ. harm
Industry standards	Investigation	Risk assessments	Good construction	Maximum throughput	Reduced public property loss
State programs	Data Collection/Analysis	Information	Good maintenance/ops		Reduced worker fatalities
	State grant funding	Grants	Good emergency response		Reduced worker injuries
	Program evaluation	Priorities			Reduced priv sector property loss
	Education	Orders			No major accidents
	Coordination	Waivers			Reliable delivery of energy
	Training	Qualified people			
	Research	New technology			
	Response				

Assumptions:

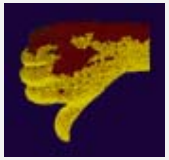
* Penalty assessments, orders, and other controls on industry behavior will be necessary and sufficient to ensure a high degree of compliance.
* Compliance is important in reducing safety risks.
* Data/analysis will provide a sound basis for decision making.

External Factors Affecting Outcomes and Impacts:

** Increasing demand for energy products*
** Constrained capacity*
** Interdependencies in the nation's critical infrastructure*
** Natural of man-made disasters*
** Population enroachment/proximity*
** Growth or decline in the U.S. economy*
** Changes in the energy/pipeline industry*
** Strong reliance on State partners*
** The need to balance safety and security*
** Public perceptions of risk*
** Large, national- or regional-level events*
** Time lag between cause and effect*
** Advances in technology*
** New sources of energy*

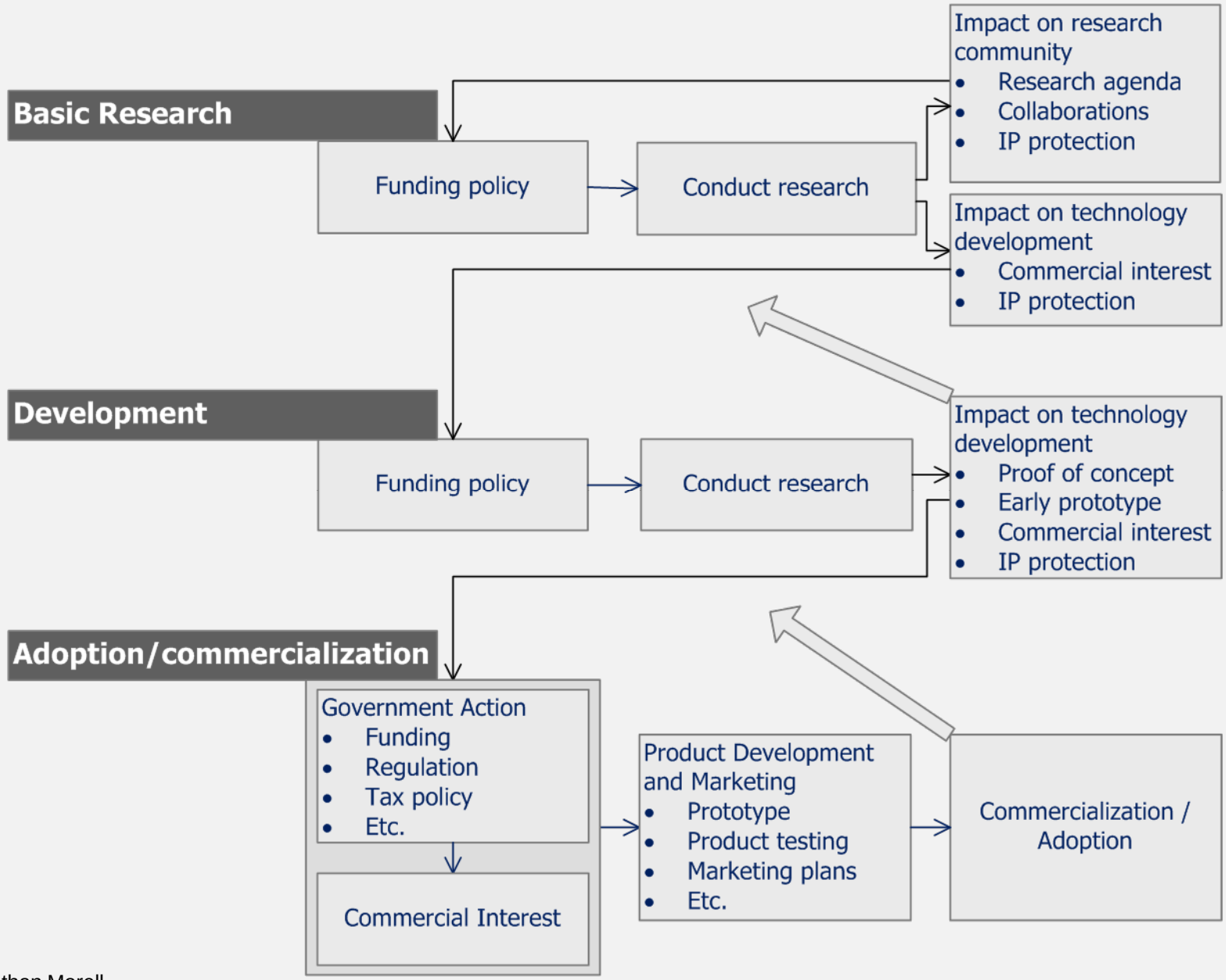
Critique of Example #3: Input → Impact for a federal regulatory agency

- Recognizes that relationships among low level items cannot be specified
- Traditional input → impact flow
- Presents assumptions needed for model to work.
- Defines each step, e.g. “output = produce (what we produce)”. Useful for people not familiar with this type of model



- Hard to read. Trade-off of information density for readability made in favor information.
- Feedback arrows seem too prominent relative to other relationships depicted.

Example 6: Evaluation along the R&D continuum



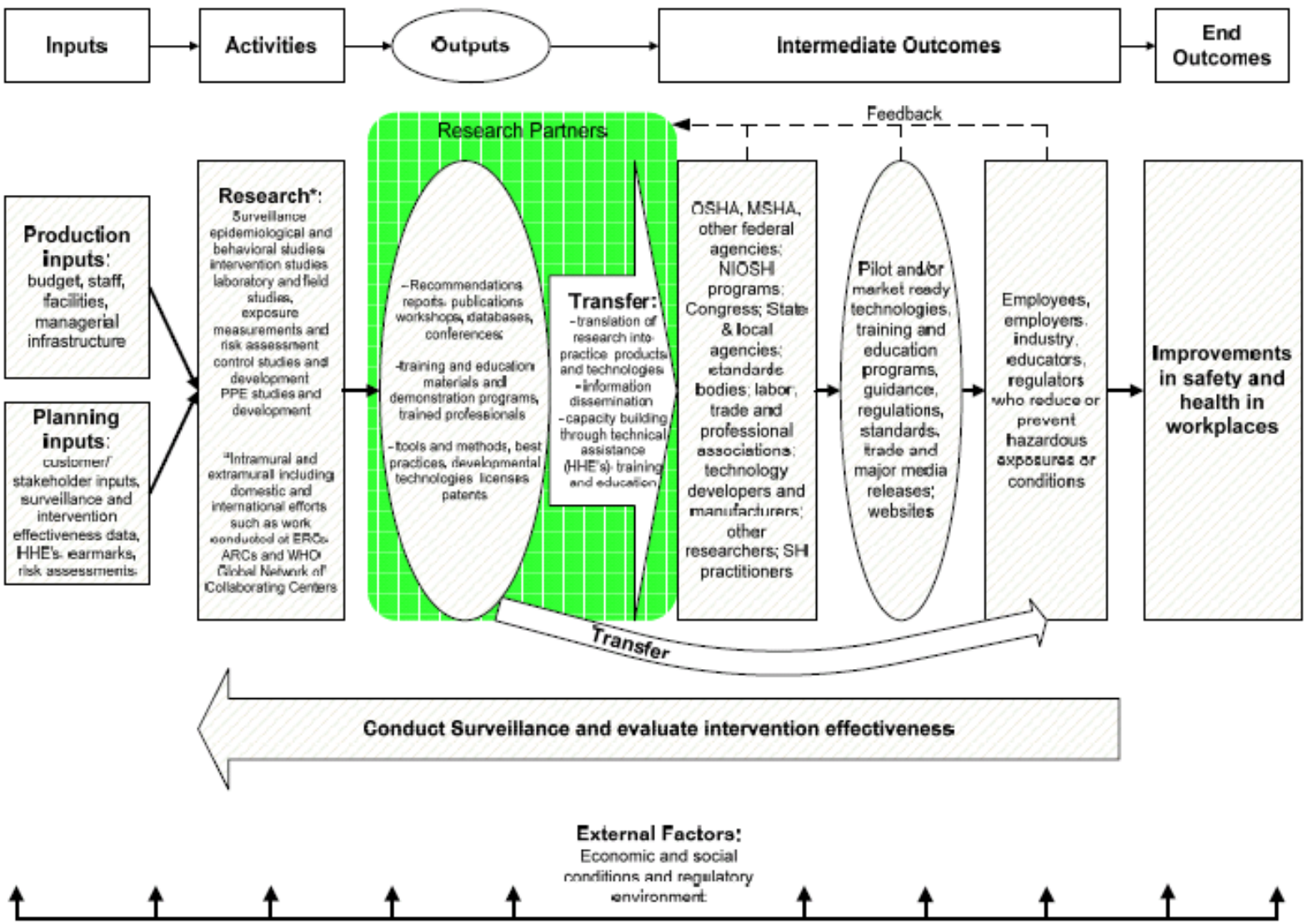
Critique of Example 6: Evaluation along the R&D continuum

- Stages along the life cycle are clearly laid out through the use of different background color and white space
- Clearly different form of arrows to differentiate 1:1 relationships and 1:many relationships

- Combining left to right with top to bottom flow of logic is confusing. (But maybe better than an outsized paper or very small boxes.)
- Not obvious that the diagonal arrows refer to the *entire* previous stage

Example 7: Evaluation R&D at NIOSH

FIGURE 1 The NIOSH operational plan presented as a logic model.



Framework for the Review of Research Programs of the National Institute for Occupational Safety and Health - 8/10/07
http://www.cdc.gov/niosh/nas/

Critique of Example 7: Evaluation along the R&D continuum

- Familiar input → outcome format
- Variety of information presented, e.g. transfer, role of research partners, production and planning inputs
- Enough detail to convey a good sense of the project without a lot of explanation

- Use of different shapes don't indicate obviously different concepts, e.g. ovals vs. rectangles
- Small print, hard to read
- Cross hatching to show region of research partners is distracting

Part 5
Developing and using logic models for maximum advantage

- Appreciate people's mixed motives for having logic models
- Knowledge transfer – logic models are useful but not sufficient
- Respect what you know and stakeholders don’t
- Tactics for working with stakeholders
- Group process
- Choosing stakeholders
- Questioning assumptions
- Logic models as a way to organize information
- Assuring relevance through revision

Appreciate people's mixed motives for having a logic model

Informed decision making

- Process
- Outcome
- Sustainability

Planning

- Especially true in the early stages of the program life cycle
- Working with evaluators to determine program theory, hidden assumptions, critical activities.
- Might be called "evaluation" but it's really a planning exercise.

Advocacy

- Act of evaluation and/or findings will help keep my program going (even if I have to be selective and distort findings.)
- The fact that something called "evaluation" is being done implies a foundation of rational decision making that shields (hides?) advocacy from scrutiny.
- Often evaluators are not aware of the mix of modes they are operating in
- Not getting into a debate about legitimacy but lack of awareness can lead to trouble

Knowledge transfer: Logic models are useful but not sufficient

- Active engagement by stakeholders prepares them mentally to receive and process the information
- Indicates
  - What information will come
  - When it will come
  - Why it is important

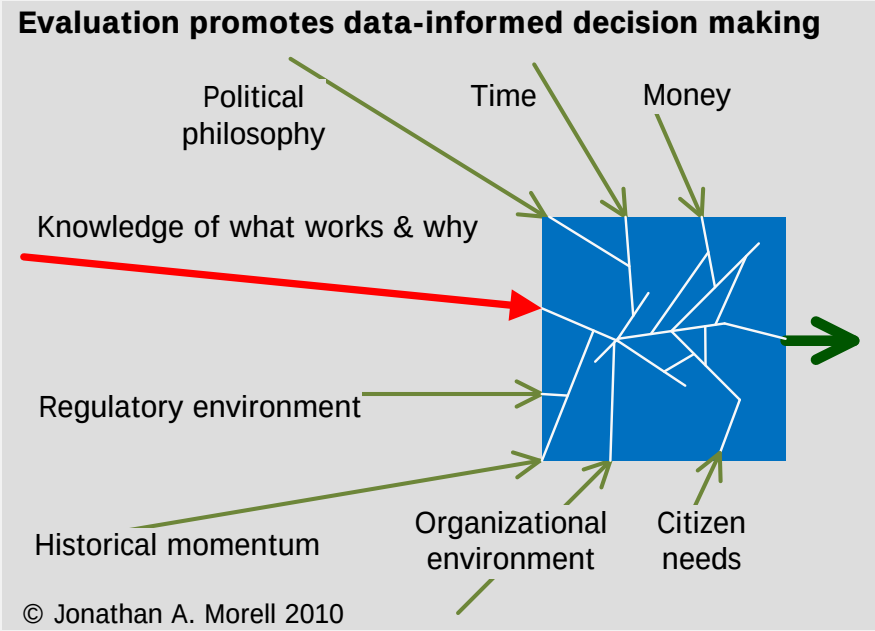
But

- There is more to promoting use than logic models
  - Not all users of the information will be involved in logic model development
  - Not all relevant knowledge can be contained in the model

Use logic models to help people understand what works and why

- Decisions about practical action get made for a lot of *legitimate* reasons, most of which have nothing to do with analytic input.

- The evaluators' job (as opposed to the job of a policy advocate) is to help knowledge of what works and why to have as large an impact as possible on decision making.



Respect what you know and stakeholders don't, or are likely to forget

- Enthusiastic stakeholders can get carried away. The evaluation really does have a
  - Scope
  - Budget
  - Purpose
- Every element and relationship in a model is a hypothesis
  - Hypotheses can be wrong
  - Error piles up
  - Level of detail scope should reflect what we know
- Evaluation is more than just a logic model
  - Metrics
  - Methodology
  - Knowledge use plans and procedures

Tactics for working with stakeholders

- Begin with a small group who already knows what a logic model is.
  - Work out model to just below a very high level
  - Use draft to get feedback from a wider circle of stakeholders and experts
- Draw a rough model and send it off for feedback and approval.
  - Can be useful for mid-term corrections or to deal with unanticipated developments
  - Requires a good working relationship with stakeholders
- Chat about the program.
  - Begin to sketch the logic they are verbalizing or implying.
  - Put burden on yourself – “This is what I understand you are telling me about the program. Did I get it right?”
- Depending on people and their experience with logic models it may be a good idea to begin with a large group

Here is an approach I like

Step 1:
Build complete model

Step 2:
Can we measure all important elements?

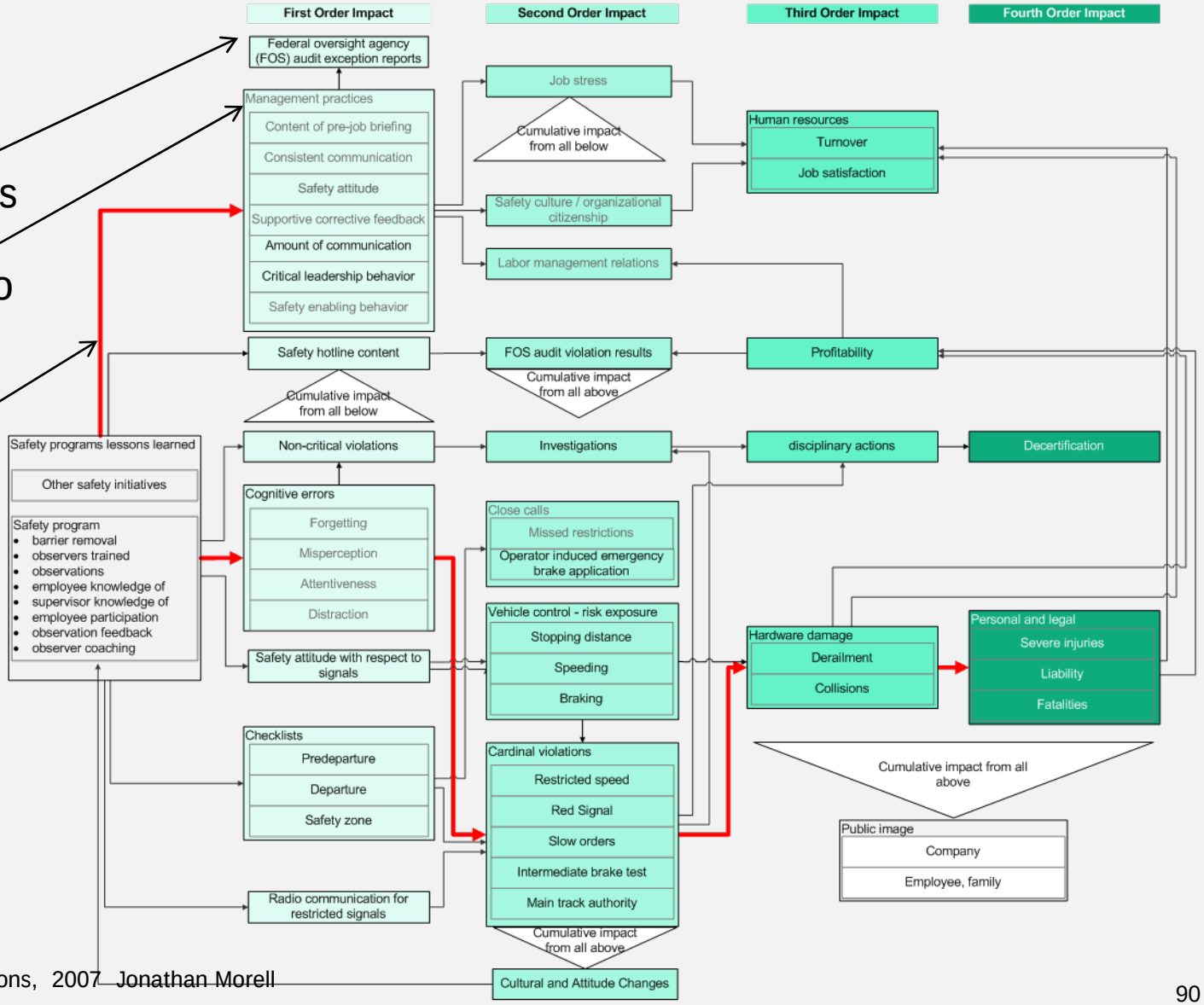
Yes

No

Step 3:
How far can we get with what we can measure?

Remember to critique the visual clutter!

Complete but Overly Complicated Model



Group process choices for logic model development

	1:1 – Evaluator to Respondent	1: Many – Group Meeting
Face to face		
Phone, video, Internet		

Considerations for choice of tactics

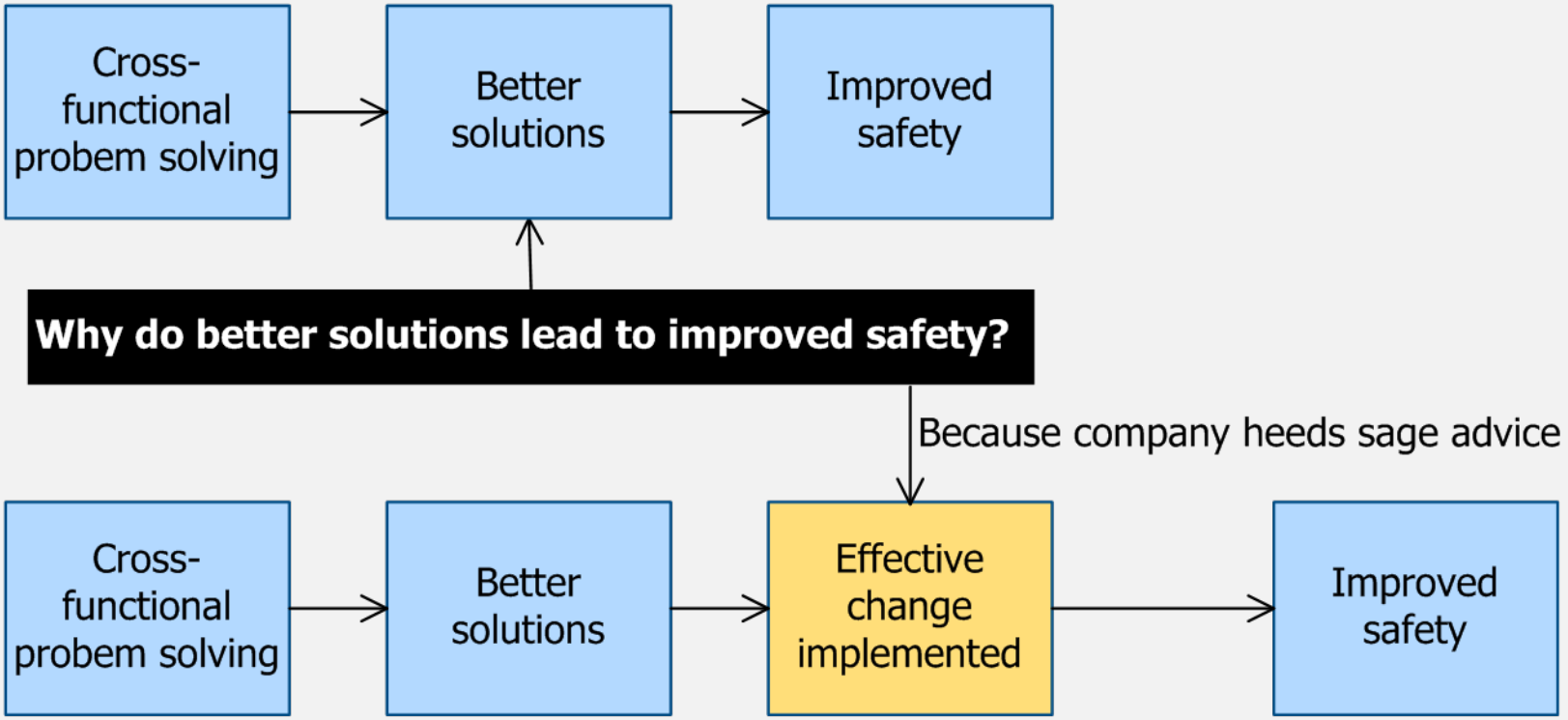
- Time pressure
- Need for consensus vs. advice
- Decide if you need consensus or advice
- Potential for conflict among stakeholders
- Working relationships among group members
- Opportunity for multiple rounds of deliberation
- Power / status differential among stakeholders
- Degree of common understanding among group members

Choosing group members

- Who can influence program operations?
  - Implementation
  - Outcome
  - Sustainability
- Who can influence the evaluation?
  - Access to data
  - Integrity of the design
- Who can make use of the evaluation findings?
  - Same program in same setting
  - Same program in a wider range of settings
  - Other programs with similar objectives
- Values
  - Who has a right to influence what the evaluation measures?
- Operational
  - Given constraints of time and money, who should be involved?
  - Will candidates put in the work?
- Some stakeholders can be sampled, e.g. teachers,
- Some stakeholders are unique, e.g. minister of education

Get people to question assumptions

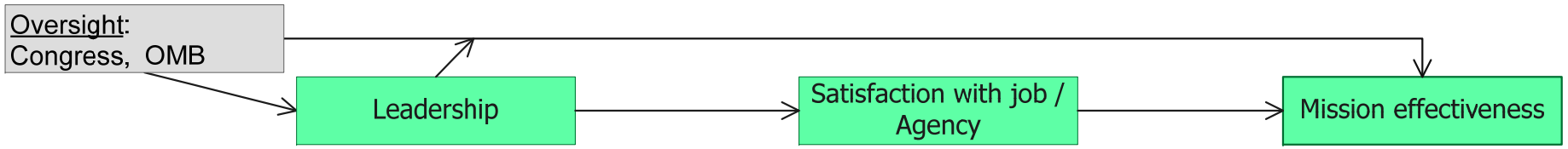
- Improves evaluation
  - Design and measurement
  - Customer expectations
- Depending on where the evaluation comes in program life cycle, may also improve program design



Get people to question assumptions

- What does the research say?
- What do non-involved experts say?
- Neighboring systems
  - What are they
  - What happens to them when the program is starts to function or starts to have an impact?
- Use the 5 whys on important parts of the model
- Unpleasant realities
  - Conflicts between a model that evaluates and a model that advocates
  - Negative consequences
    - Opportunity costs
    - Conflicts with other activities, systems, programs, etc.
    - Perverse effects, e.g. education for girls leads to social displacement

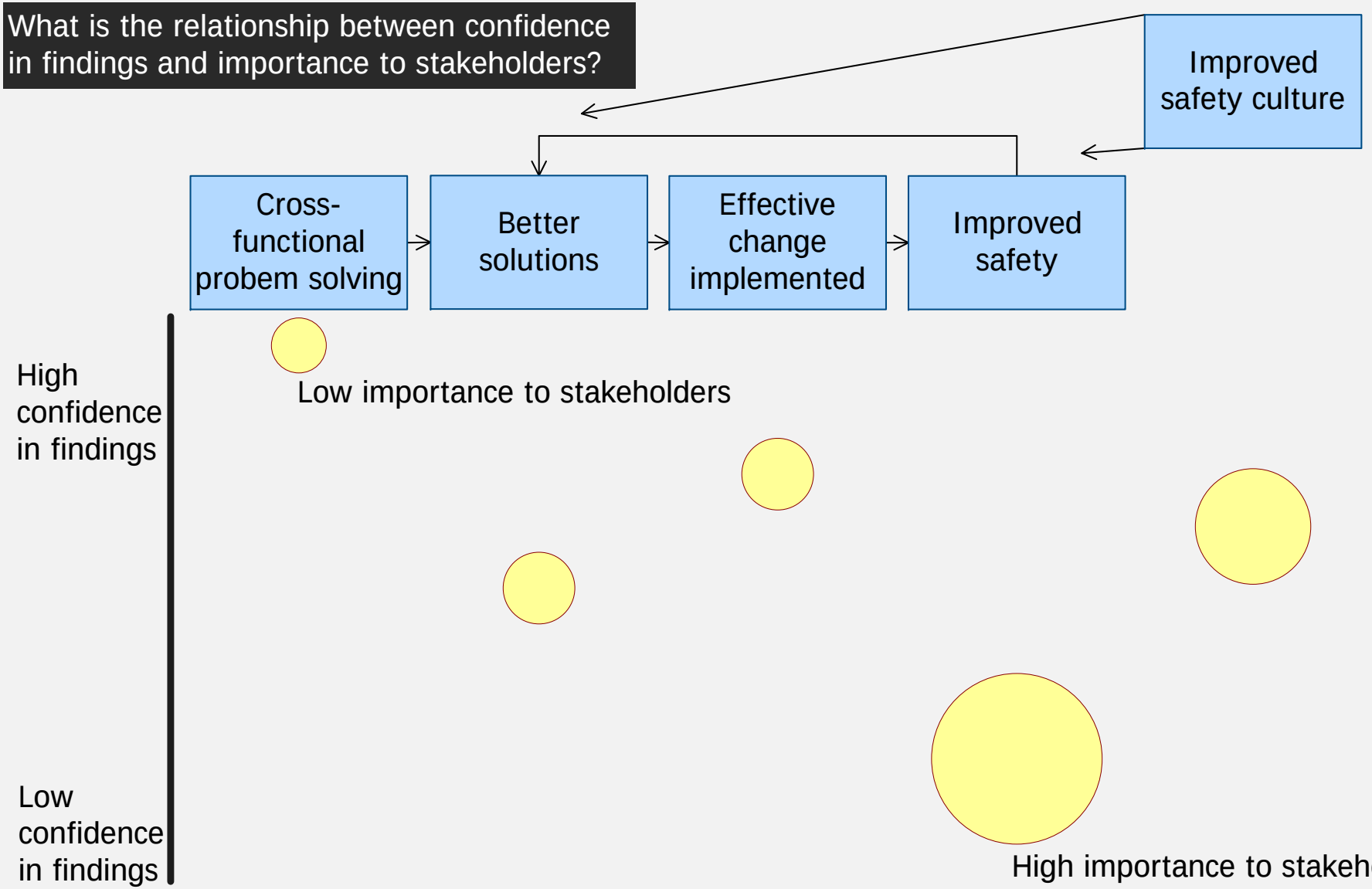
Use Logic Models to Organize Multiple Sources of Information



Summary	Senior leadership demonstrate ….	Satisfaction with agency performance varies with "organizational distance"…	Individual employee motivation affects organizational level activity…
FHCS	▪ Leadership, especially senior leadership, key driver of job satisfaction ….	▪ Employees more satisfied with formal appraisal systems than discretionary ….	▪ Employees depict information flow as relying heavily on informal channels…
Employee Engagement Merit Systems Protection Board,2008.	▪ First line supervision a critical factor in determining …	▪ Characteristics of engagement	▪ Agencies with higher engagement…
360 Leadership Survey	▪ Leaders build strong working relationships and demonstrate …		
Organizational Culture Scales	▪ Scale scores demonstrate pattern of bias toward more proximate leadership…		▪ Teamwork and rapport with direct supervision are best rated elements …
Open Ended Responses Following Culture Scales	▪ Strong suspicions of leadership being …	▪ Dissatisfaction with discretionary applications of fairness…	▪ Employees critical of agency's effectiveness amid …

Use Visual Displays Creatively

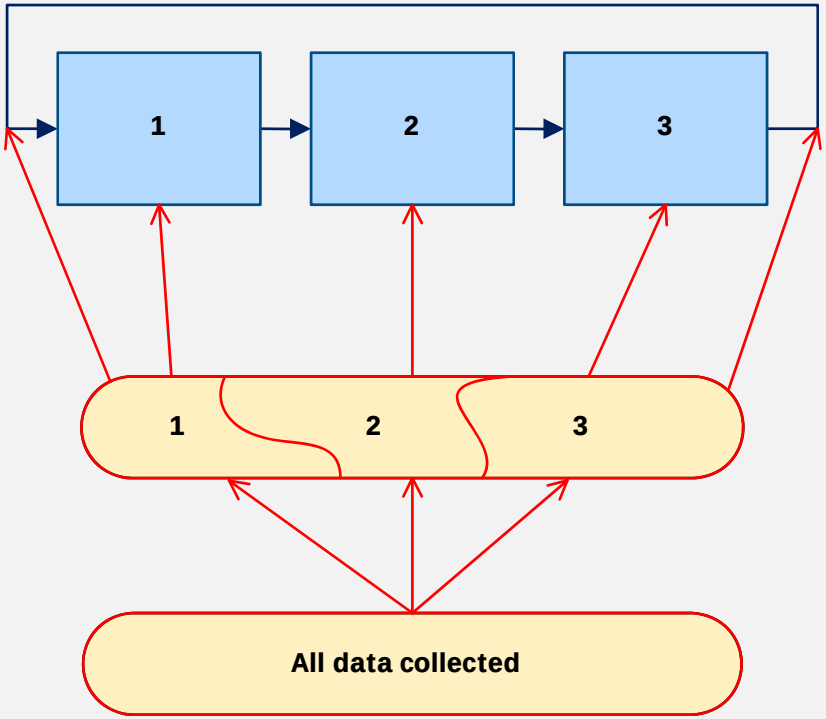
What is the relationship between confidence in findings and importance to stakeholders?



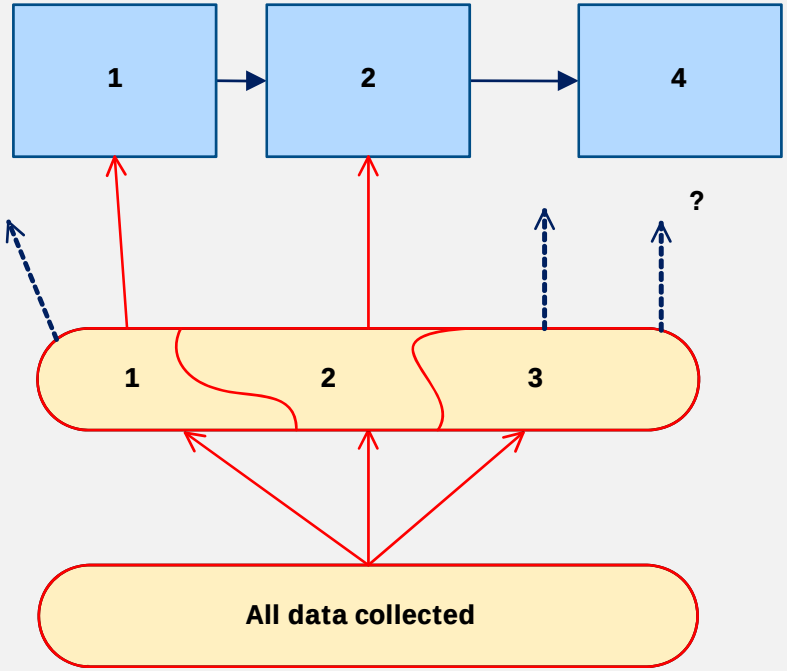
Consider the advantages and disadvantages of linking different elements of the evaluation

Index Logic Model → Data → Analysis

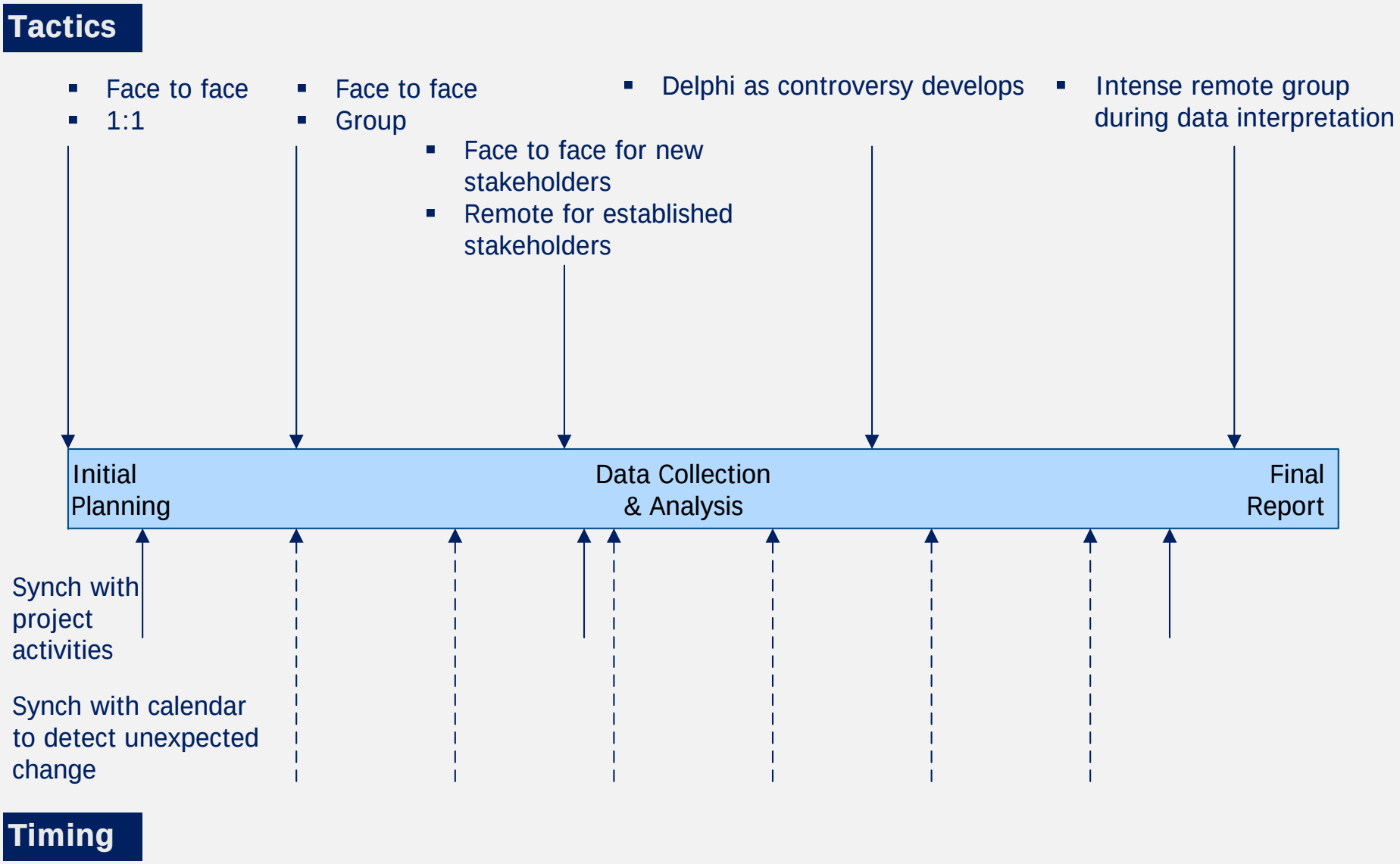
- Powerful
- Elegant
- Useful



But think of the rework when the model changes



Managing revision along two dimensions



Assure relevance through revision

- Begin with a model that is useful and relevant
- Match tempo of revision to purpose of evaluation and program stability
  - Frequent: Heavy formative evaluation to assist in developing a novel program in an unfamiliar setting
  - Infrequent: Stable program with heavy emphasis on long term outcome
- Fixed schedule for revision
  - Timeline
  - Resources
- Include non-stakeholder expertise and knowledge
  - Similar programs
  - Relevant research literature
- Vigilance about change in
  - Program
  - Environment (e.g., policy, funding, public perception)

Assure relevance through revision

- Look for targets of opportunity to adjust in midstream
  - Maintain relationships with stakeholders so you can ask them to work at revisions
  - Sneak in resources to allow unscheduled change, e.g.
    - make it part of “data analysis” and pad the budget
  - Revelations about program behavior revealed during discussions about findings, e.g.
    - “We were wrong, it looks as if culture is changing earlier than we thought”
  - Realizations that important program activities were left out, e.g.
    - “We probably should have modeled the pre-implementation recruitment process.”

Part 6: Discussion

- How has your thinking changed about the relationship between logic models and other aspects of evaluation?
- How can logic models be useful for reasons other than getting consensus among stakeholders about program operations?
- When is it useful to use multiple forms of a model for the same evaluation?
- What is the value of making the information content of a logic model more dense and multidimensional?
- What are the different uses of a logic model at different points on the evaluation life cycle?
- Why/when can logic models be useless or counterproductive?