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The University of Texas at Austin

Logic Modeling

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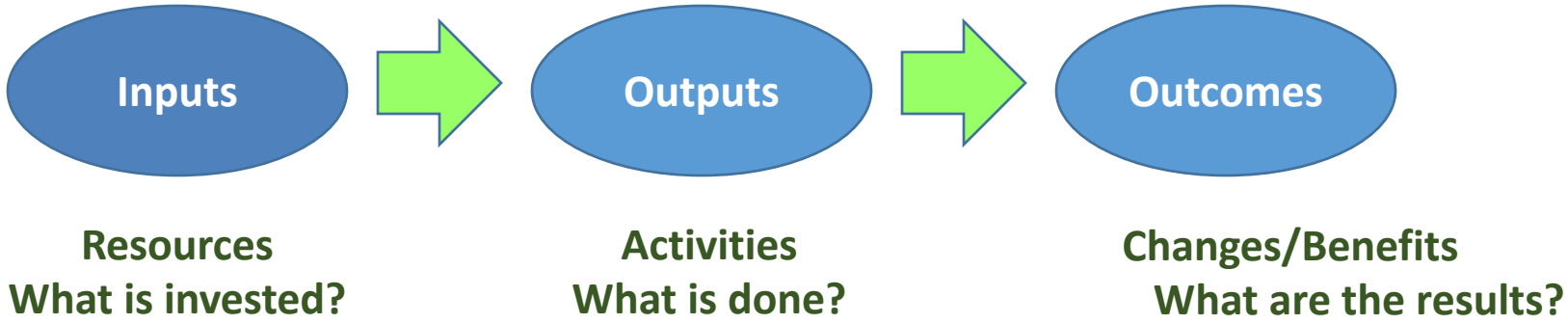
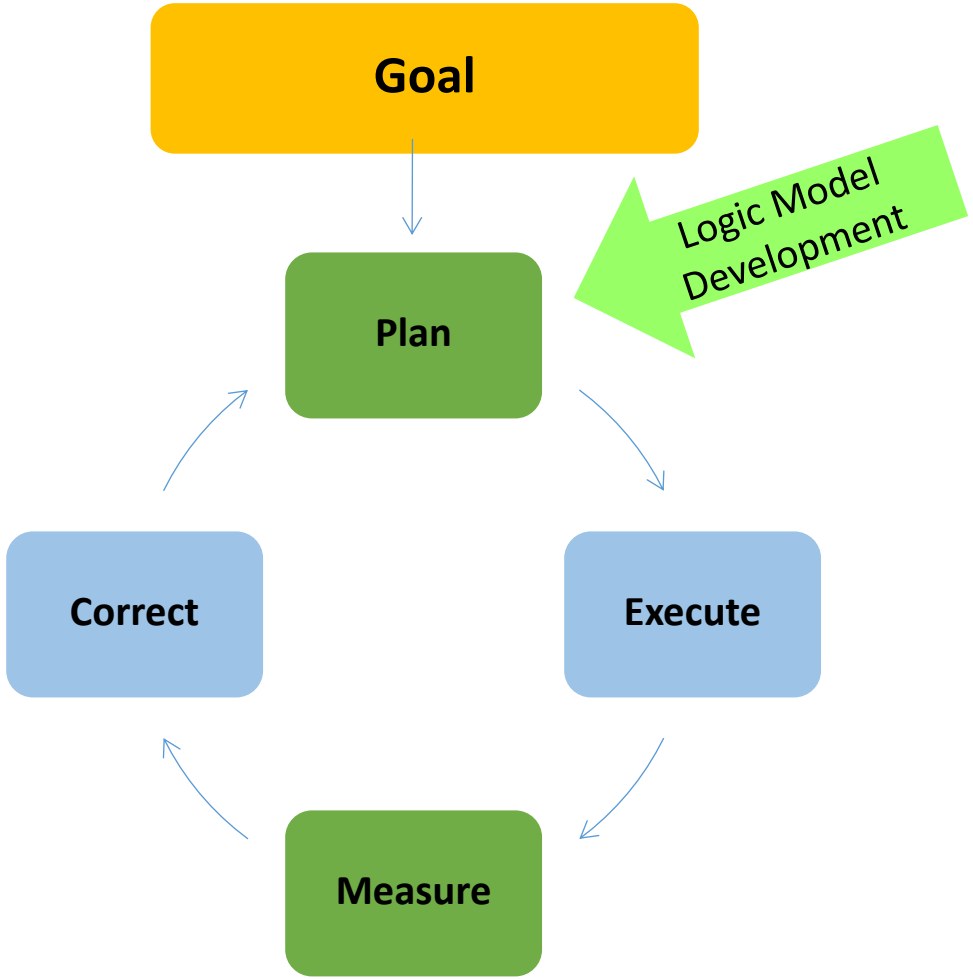
What is a logic model?

- Visual representation of the logical relationships among inputs, outputs and outcomes
- Core of planning, project management, evaluation and communications
- Graphic map of where you are going, how you plan to get there, if adjustments are needed, and when you have arrived



When do you use logic models?

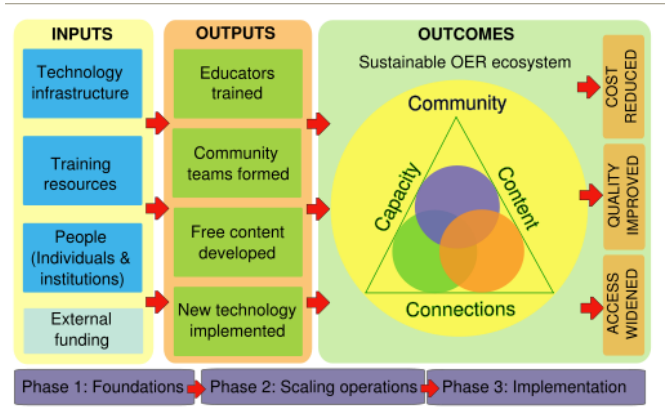


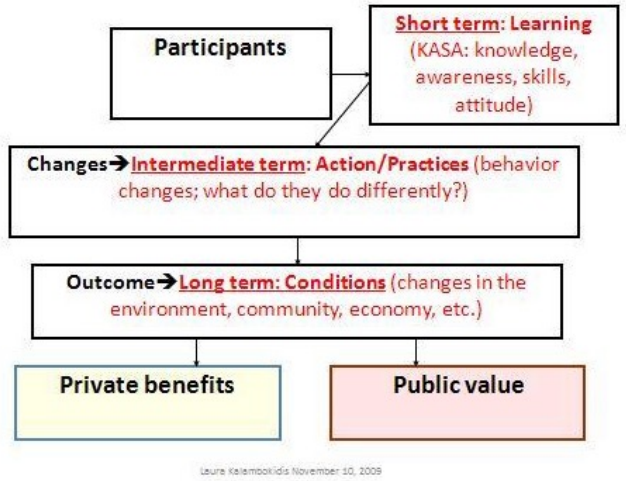
Why are logic models important?

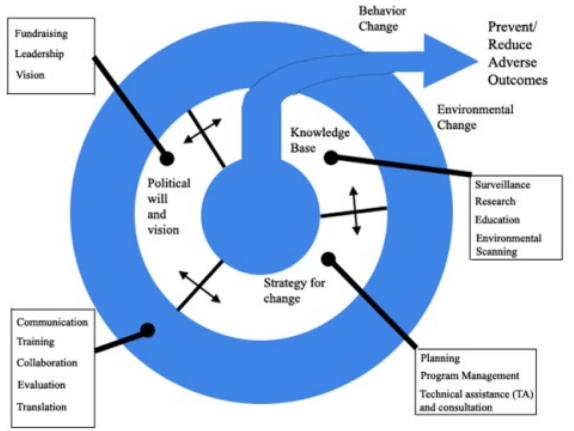
- Process builds a **shared understanding** about how the project/system works
- Helps **focus and prioritize** evaluation questions
- Helps determine what is appropriate to **evaluate**
- Helps determine how to allocate **resources**
- **Bridges the gap** between program logic and actual program operations
- Helps differentiate between “what we do” and “results of what we do” --- **outcomes**

What does a logic model look like?

- Graphic display of boxes and arrows
  - Relationships, linkages
- Any shape and form imaginable
  - Circular, dynamic
  - Vertical or horizontal
- Level of detail
  - Simple
  - Complex







Example Logic Model

Inputs	Activities/ Components	Participation Metrics	Short-Term Outcomes	Long-Term Outcomes	Impacts
Resources •Staff •Funders •Partners Target Users •Researchers •Policy analysts •Students	•Online platform •Conferences/ trainings •Digital outreach (email, social media)	•2K unique users/year •500 new users/year •50 training participants •600 social media followers	•Increased awareness of platform •Increased access to data •Increased efficiency of data analytics •Use of data in research	•Improve quality of research •Improve field infrastructure for data sharing	•Improve geoscience knowledge base •Improve disaster prep aredness capacity
Contextual factors: Data sharing policies, research funding priorities					

Main Components of Logic Models

1. Situation: Problem addressed and contextual factors
2. Inputs: Resources and target participants
3. Outputs: Activities and participation
4. Expected Outcomes: Short-term, intermediate and long-term outcomes and impacts

Situation

- What is the current issue or problem you want to address?
- What are the contextual factors?

- Considerations:
  - Start with a comprehensive understanding of the situation - problem analysis
  - Make the situation or problem statement your anchor - the logic model grows out of this
  - Situations change, so update as needed
  - Set priorities

Inputs

- What resources are needed (and available) to achieve the project/initiative objectives?
- Types of resources
  - Financial, leadership, organizational, community, technology, materials/equipment, partners
- Participants
  - Target users, other users, partner organizations

Activities

- What are you doing with the resources to meet your objectives?
- What are your main project/system components and/or strategies?

- Example activities:
  - Develop an online platform or other resources
  - Provide training or other supports
  - Coordinate collaboration and/or events
  - Share and disseminate research
  - Collect data to assess progress and needs

Participation

- Who do you reach and engage in your activities?
- What types of participants are engaged in which activities?

- Example participation metrics:
  - Number, diversity and types of researchers engaged
  - Number, diversity and types of system users
  - Social media output and usage

Expected Outcomes

- Pick timeframes that make sense for your project/system

- Short-term outcomes
  - Focus on learning, attitudes, awareness, skills
- Intermediate outcomes
  - Focus on actions, practices, policies
- Long-term outcomes or impacts
  - Focus on conditions, socio-environmental, civic, economic

Expected Outcomes		
Short Term *By End of Year 1?*	**Intermediate** *By End of Year 3?*	**Long Term** *By End of Year 5?*

Outcome Considerations

Are your outcomes …

- **Important?**
  - Does the end outcome represent an important change or improvement that is valued by stakeholders?
- **Reasonable?**
  - Are the outcomes linked in logical order?
  - Will the short-term outcome lead to the intermediate, and then to the long-term outcome?
  - Are they connected to specific project activities?
- **Realistic?**
  - Are the outcomes realistic given the nature of the problem, your resources, your abilities, and your timeframe?
  - Will the project lead to or help contribute to these outcomes?

Questions

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Thank you!

Please contact me with any additional feedback or questions:

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https://www.tacc.utexas.edu/epic/stem-evaluation-services