NEXT-LEVEL LOGIC MODELS

for Your ATE Proposal and Beyond

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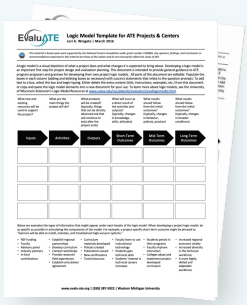
Materials

Slides



Additional Resources

Recording

Introductions

Emma
Binder

Lyssa
Wilson Becho

Behind the Scenes

Ana Councell

Lori Wingate

Kelly Robertson

Megan Zelinsky

Advanced Technological Education Program

www.nsf.gov/ate

This material is based upon work supported by the National Science Foundation under Grants Nos. 1600992 and 1841783. The content reflects the views of the authors and not necessarily those of NSF.

Hello

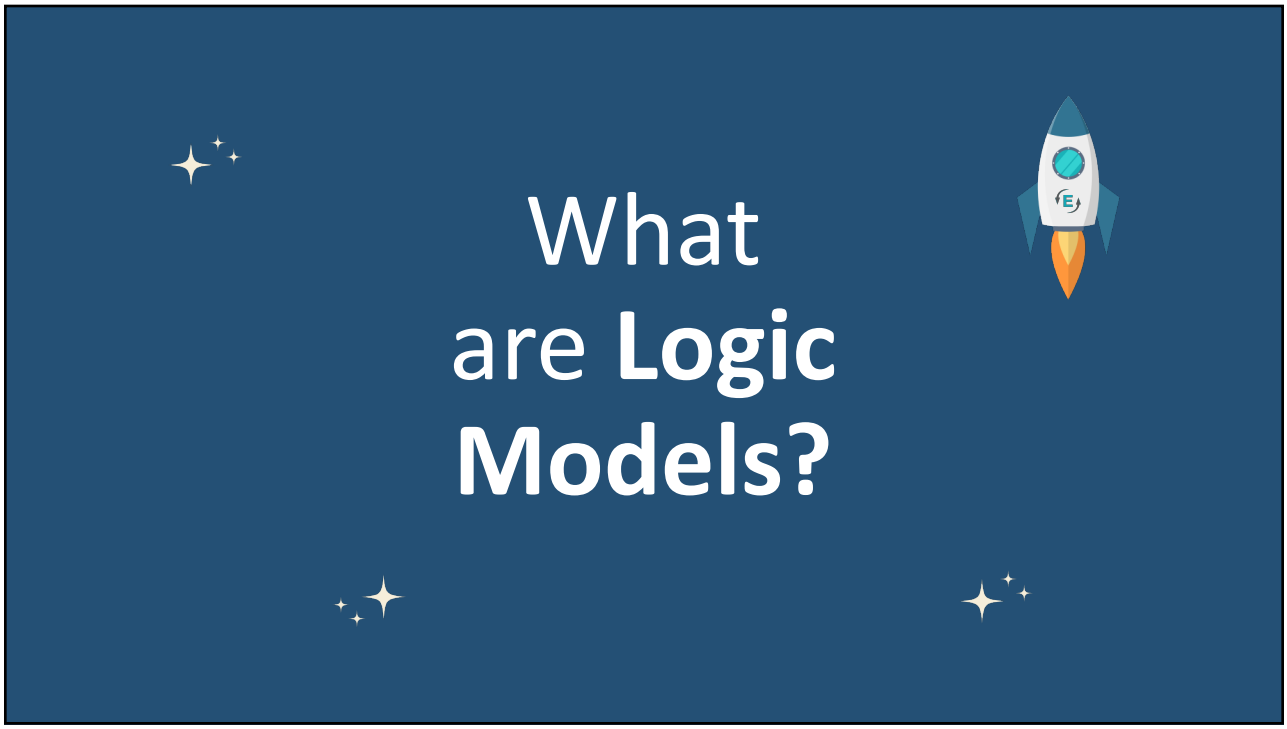
Lyssa Wilson Becho

Poll

What best describes your role (current or future)?

Poll

How are you involved in ATE or NSF?



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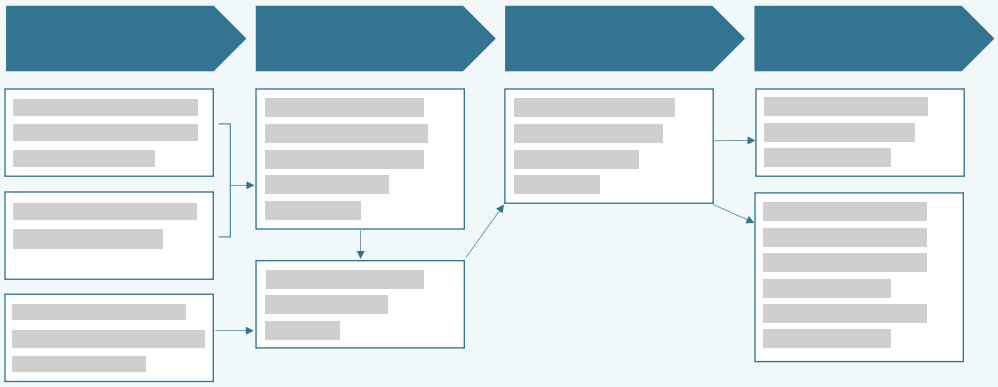
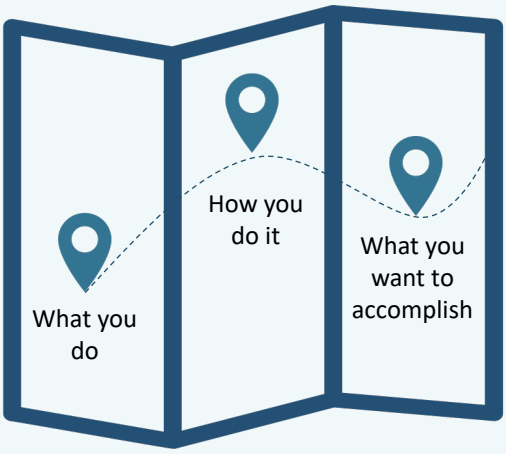
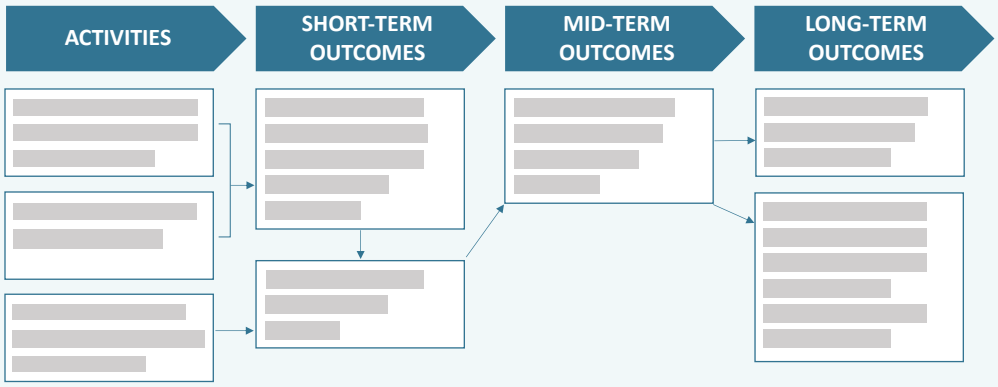
What is a logic model?



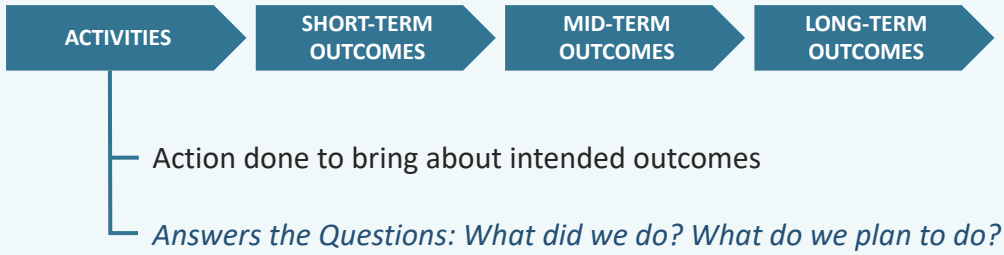
What is a logic model?



Parts of a logic model



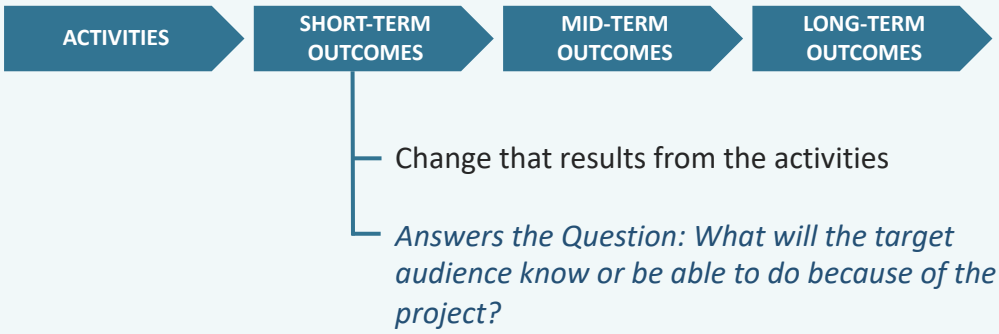
Parts of a logic model



Action done to bring about intended outcomes

Answers the Questions: What did we do? What do we plan to do?

Parts of a logic model



Change that results from the activities

Answers the Question: What will the target audience know or be able to do because of the project?

Parts of a logic model

Change that results from the short-term outcomes

Answers the Question: What are the next anticipated changes in the target audience because of the short-term outcomes?

Parts of a logic model

ACTIVITIES → SHORT-TERM OUTCOMES → MID-TERM OUTCOMES → LONG-TERM OUTCOMES

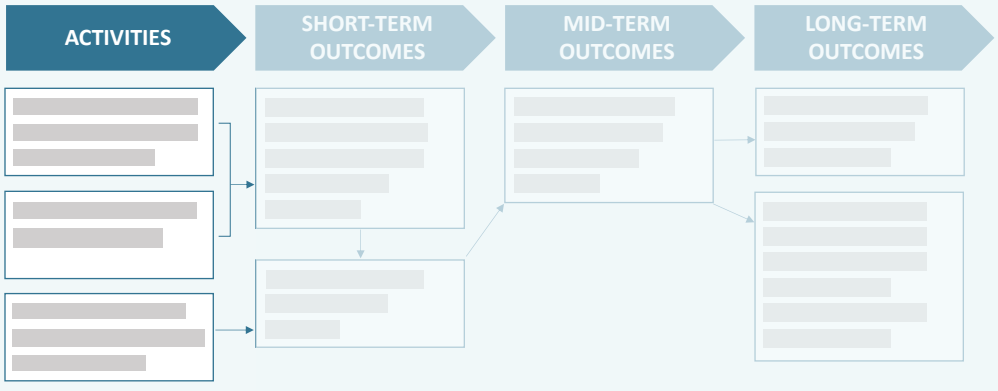
Change that results from the short- and mid-term outcomes, related back to initial need for project

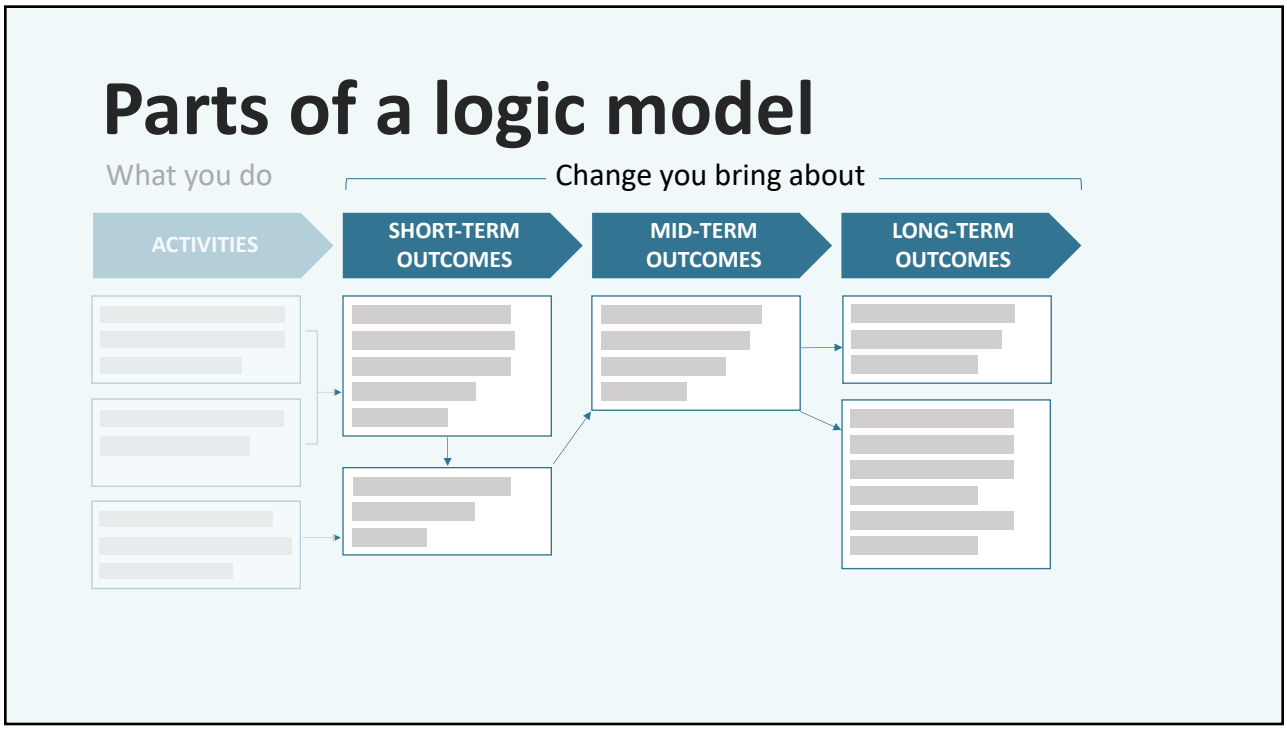
Can be at the individual level or impacts on systems, institutions, and communities resulting from the project outcomes

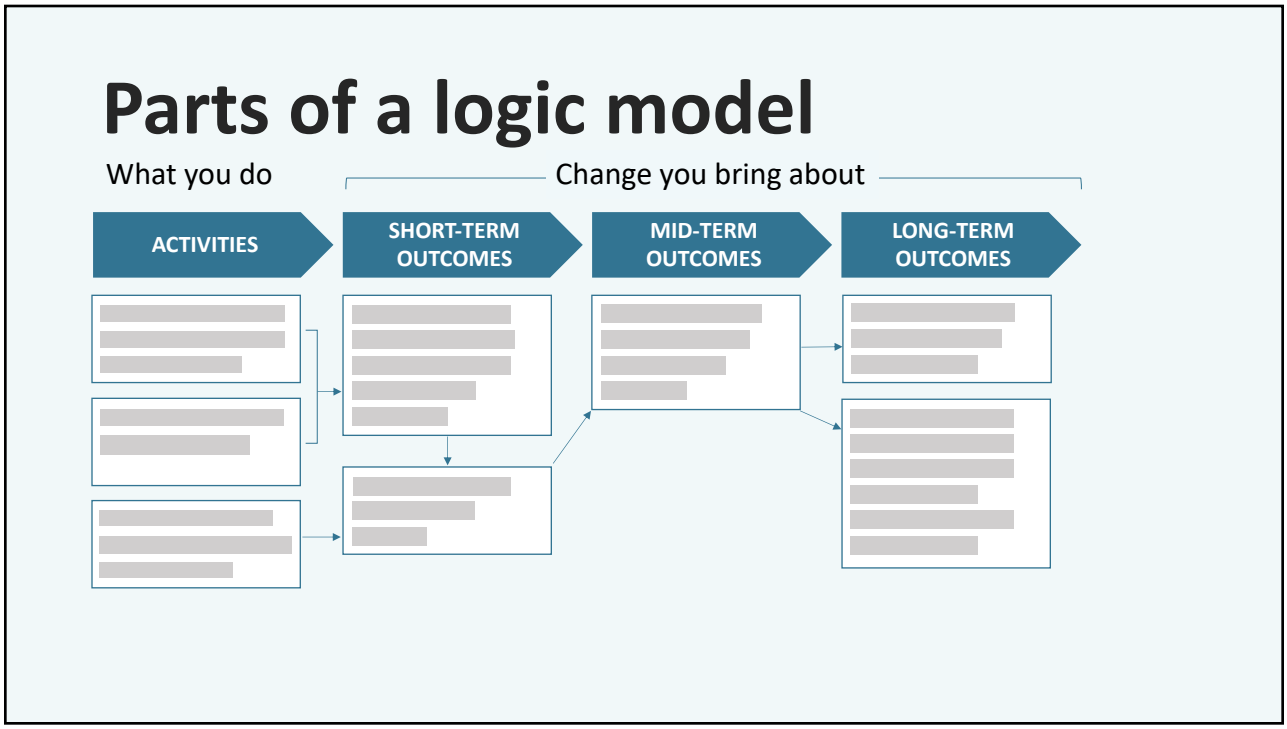
Answers the Question: What is the larger impact of the project?

Parts of a logic model

What you do




Parts of a logic model
What you do
Change you bring about
ACTIVITIES
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES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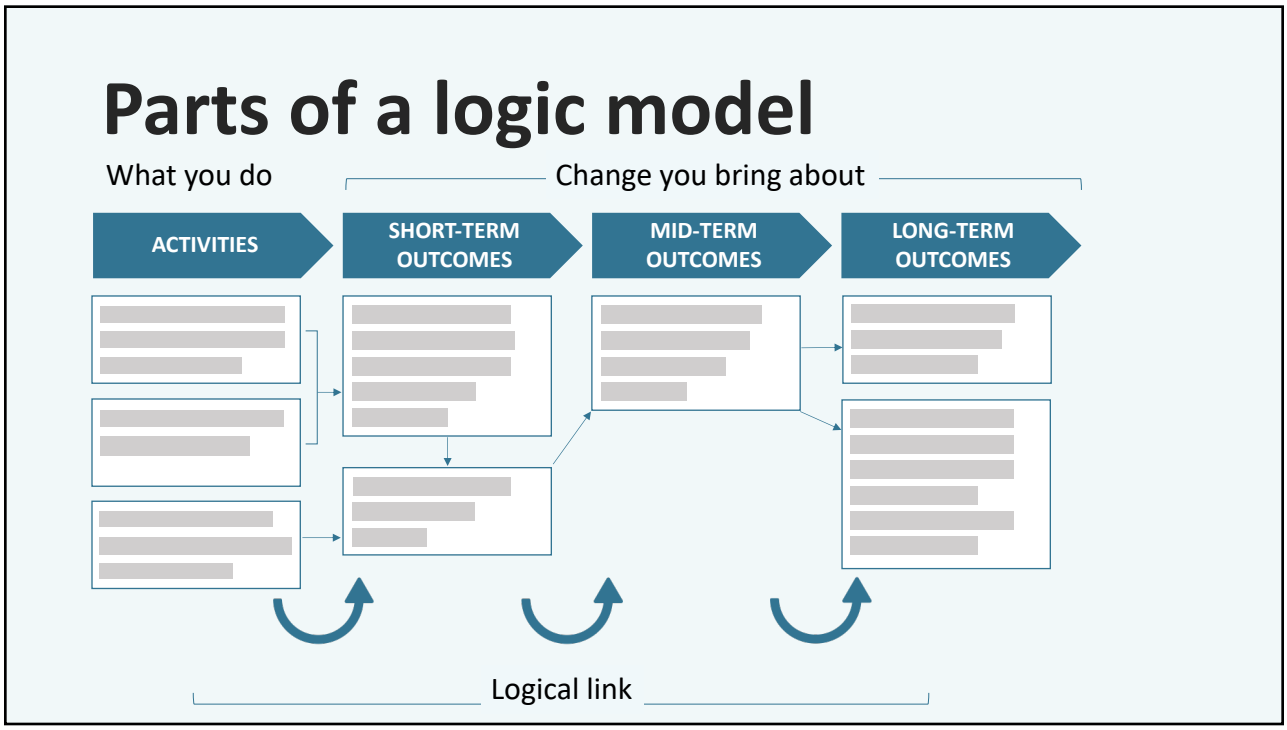
What you do
Change you bring about
ACTIVITIES
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES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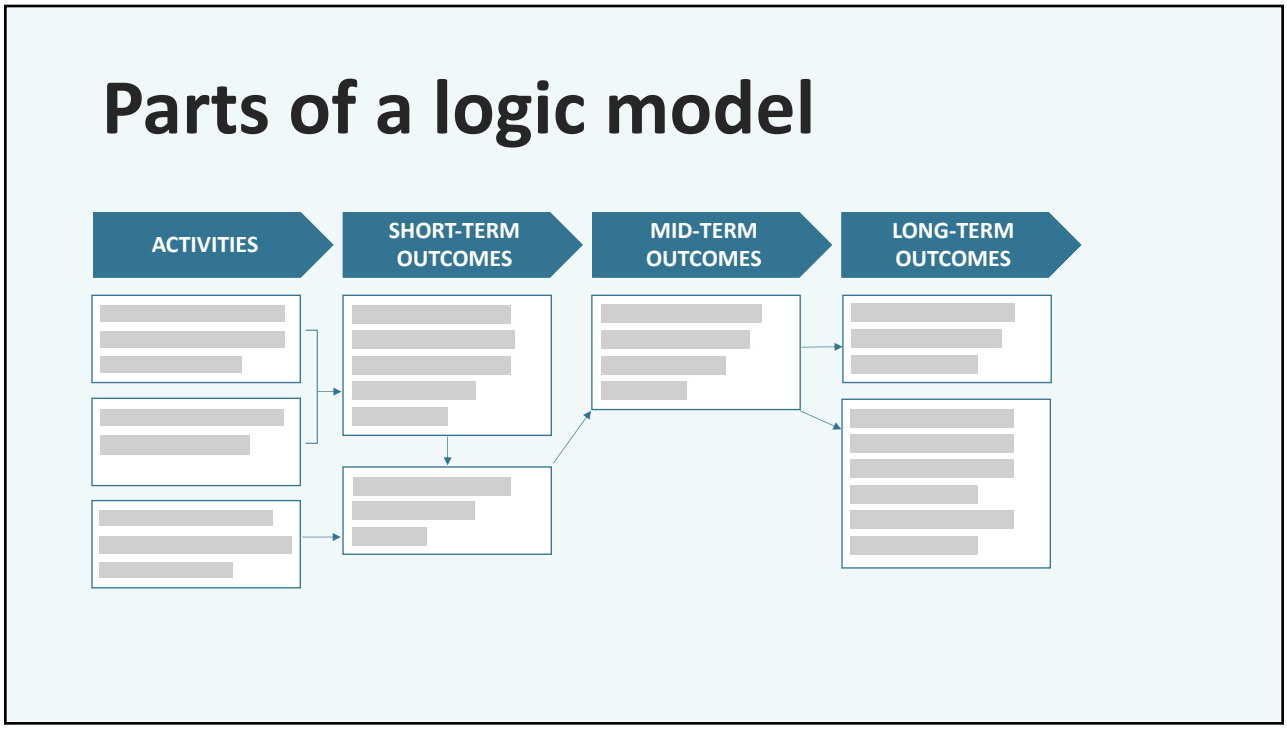
What you do
Change you bring about
ACTIVITIES
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES
Logical link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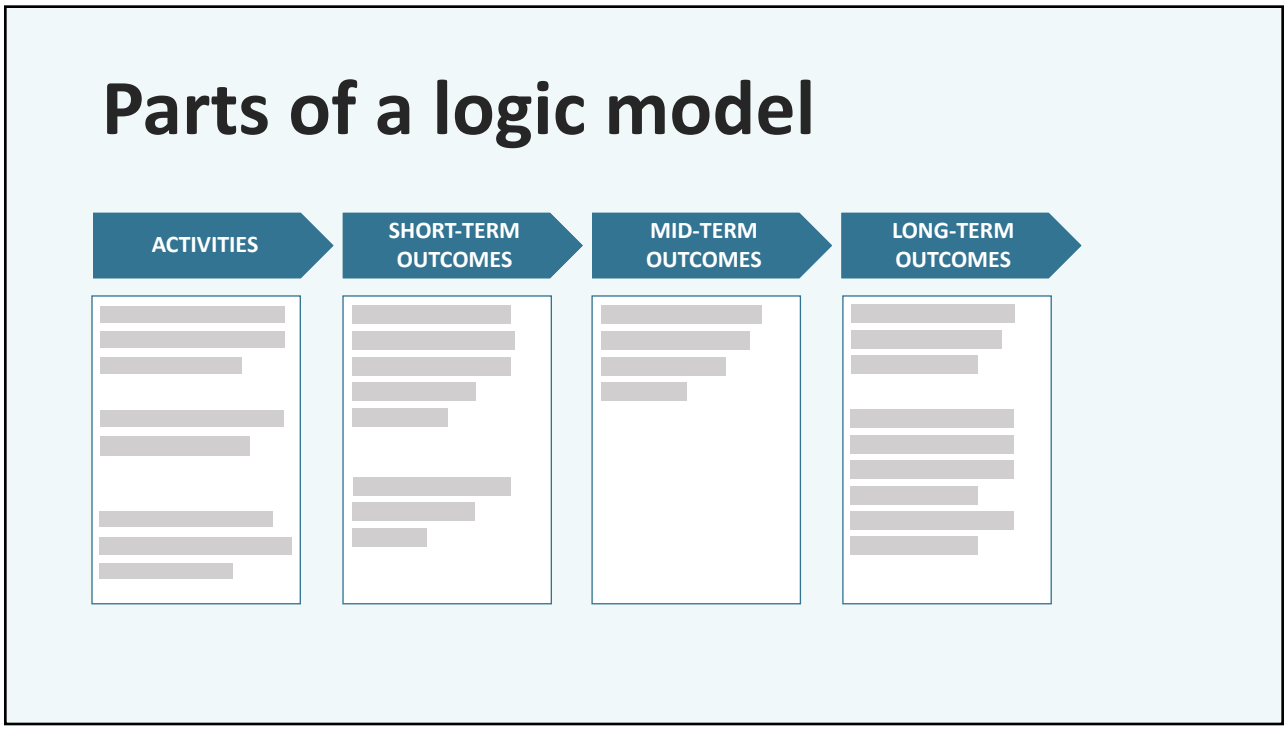
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES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ACTIVITIES
SHORT-TERM OUTCOMES
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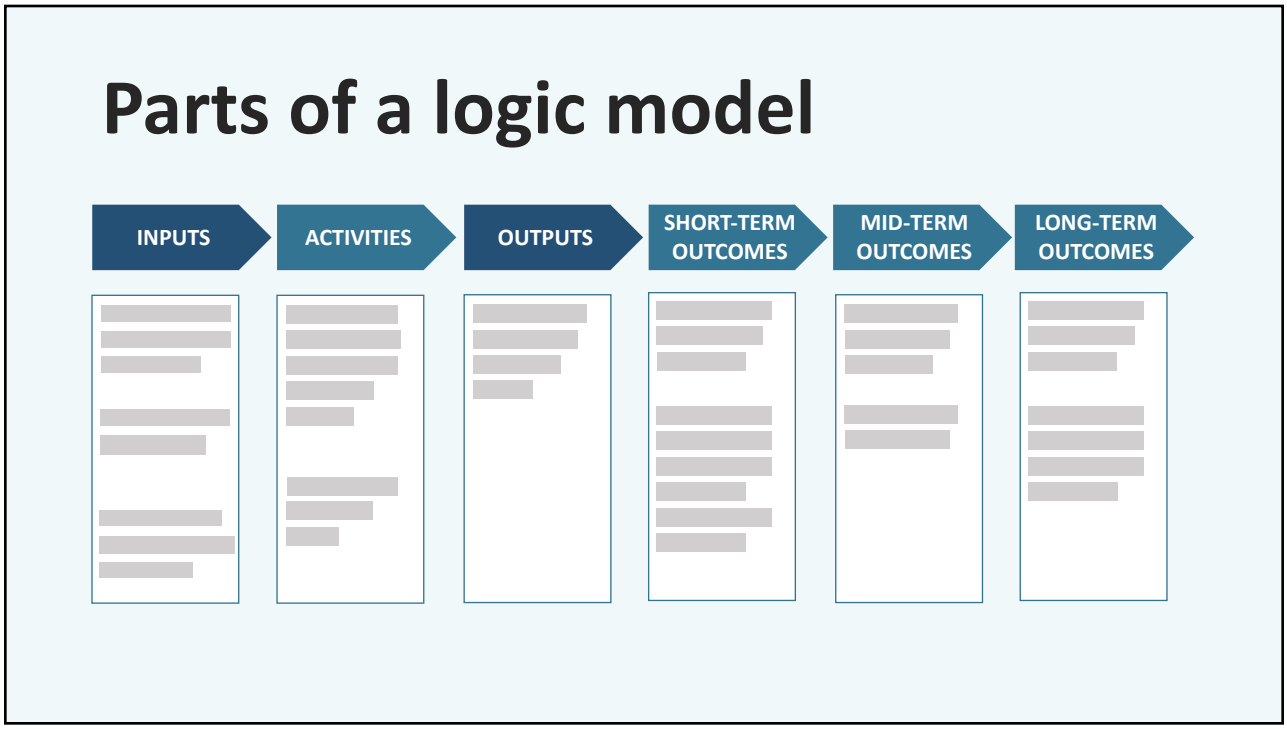
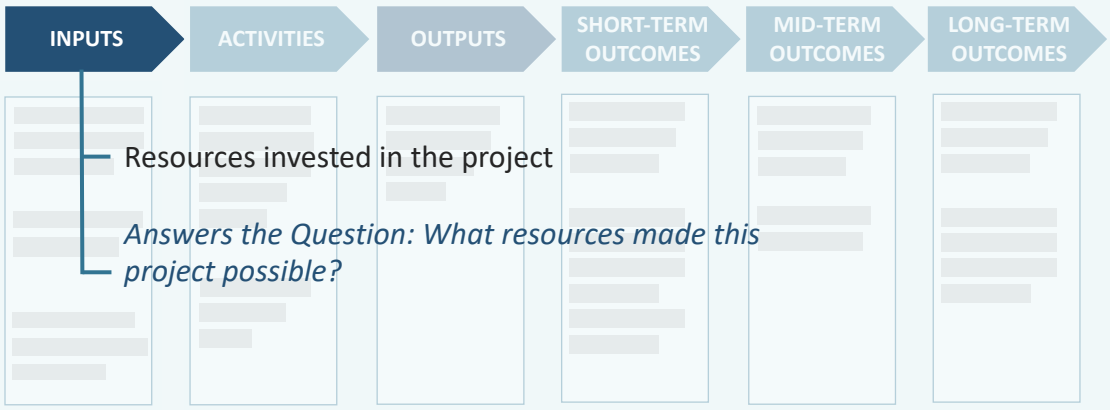
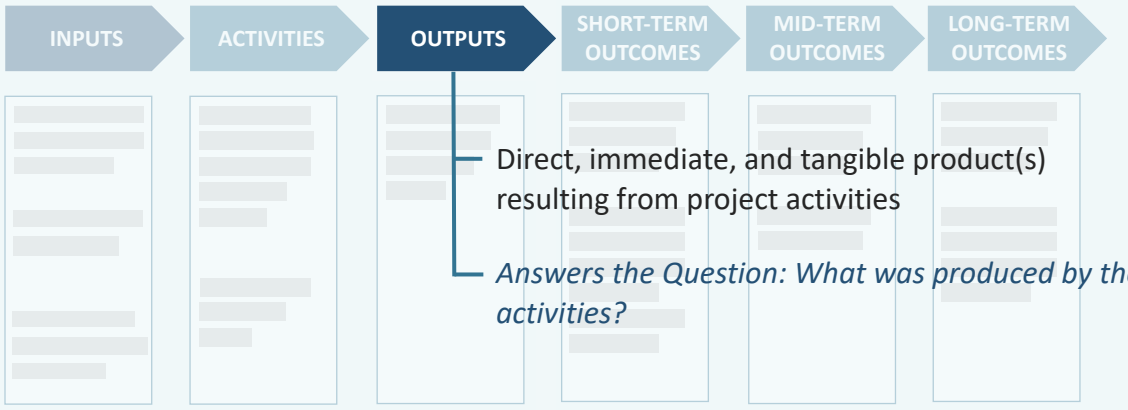
LONG-TERM OUTCOMES

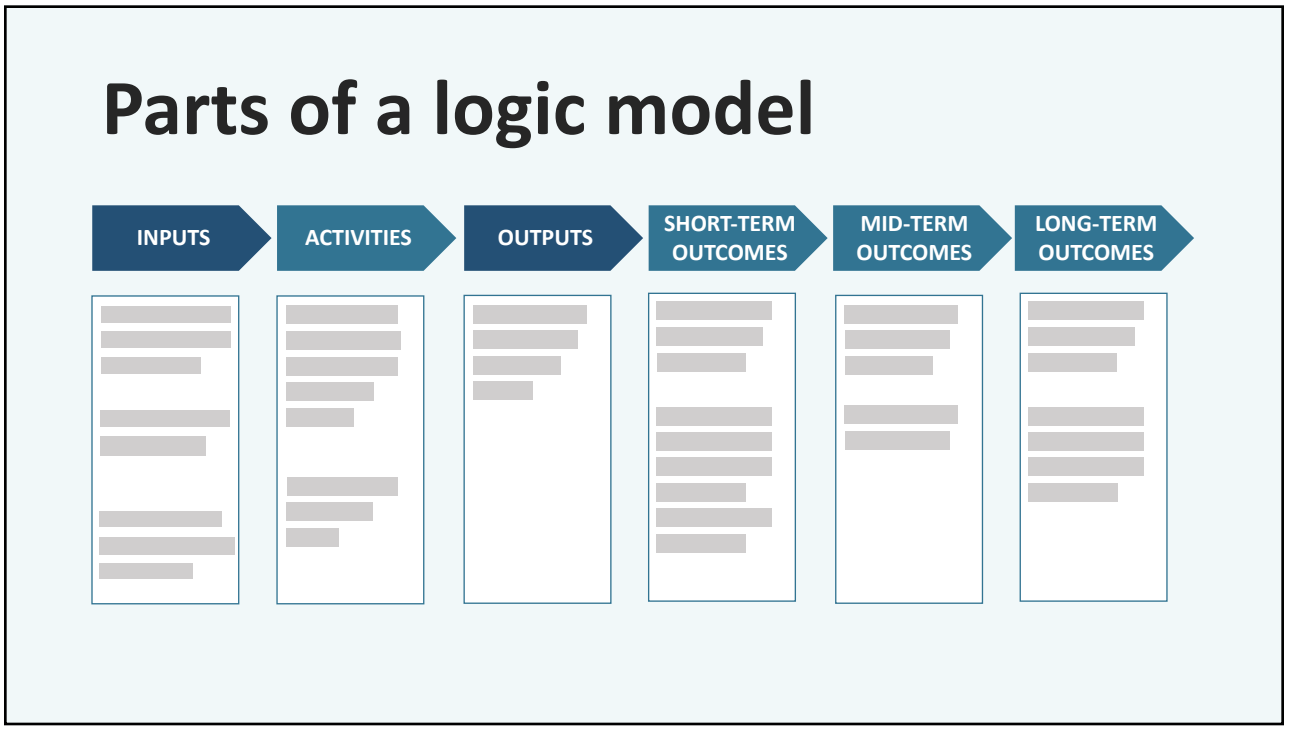

Parts of a logic model
INPUTS
ACTIVITIES
OUTPUTS
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES

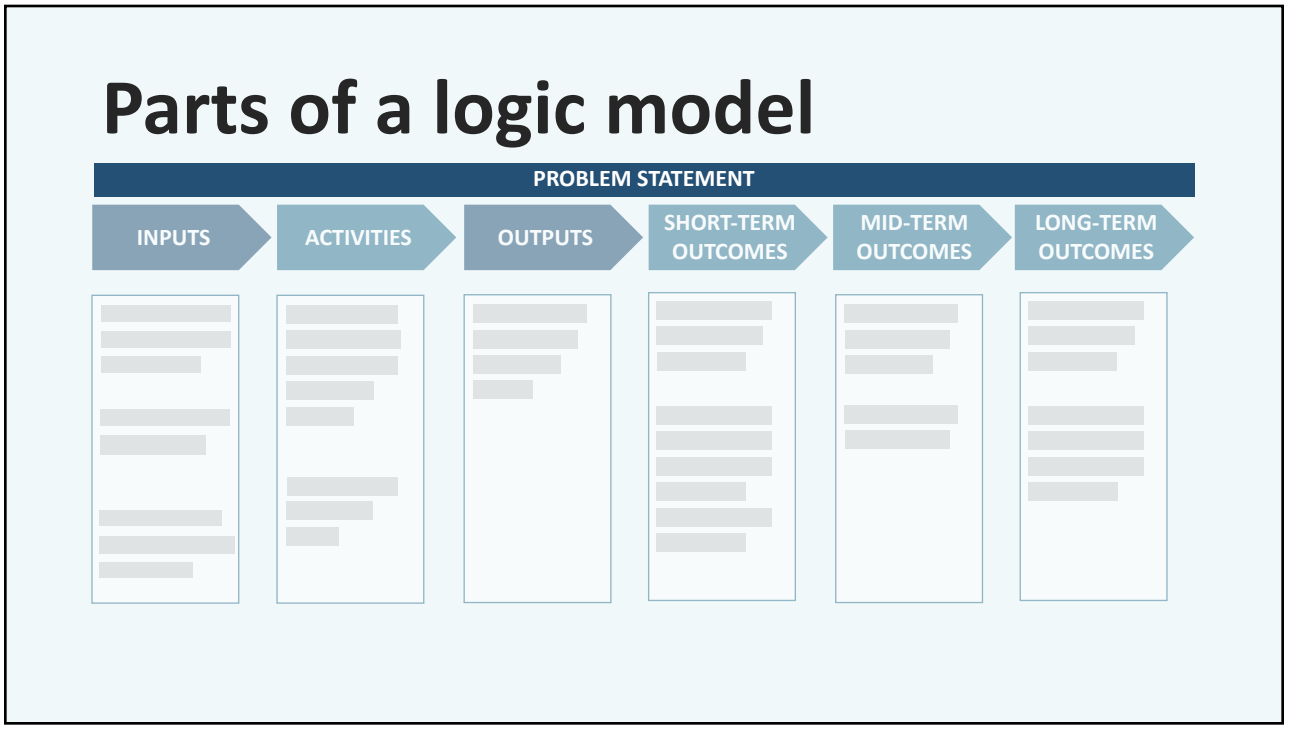
Parts of a logic model

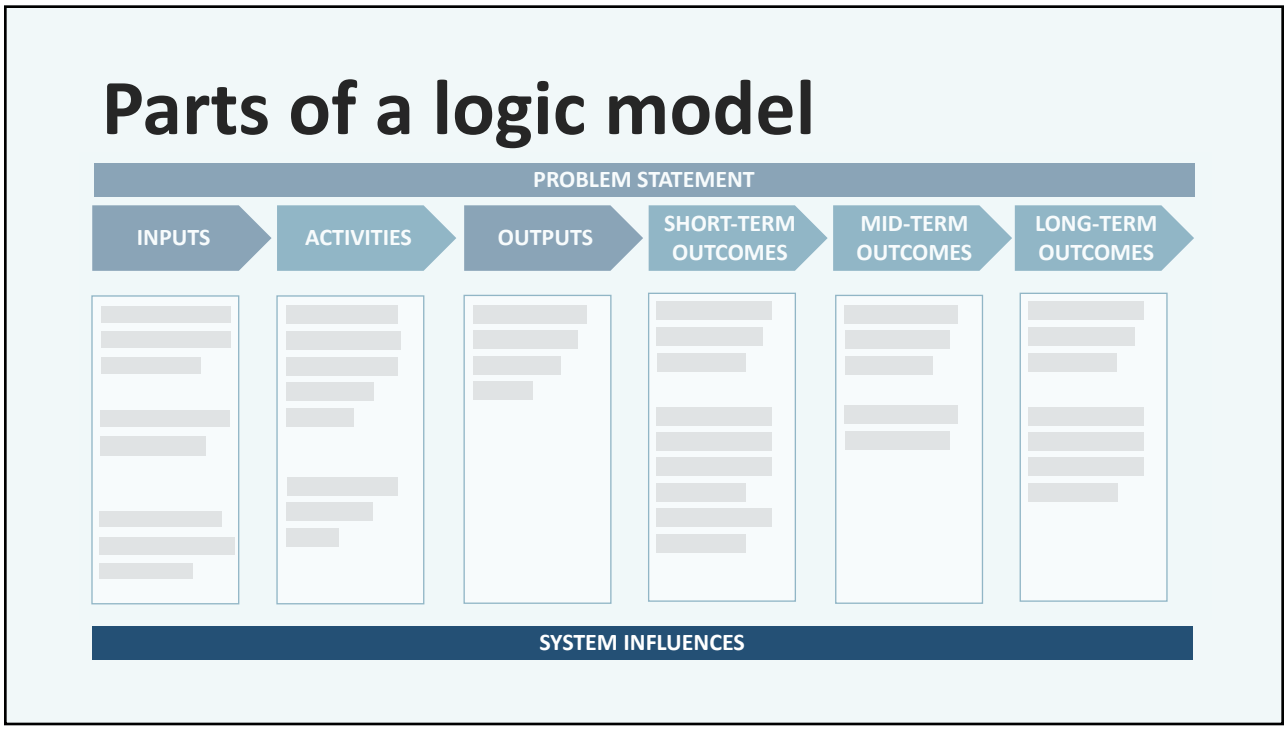


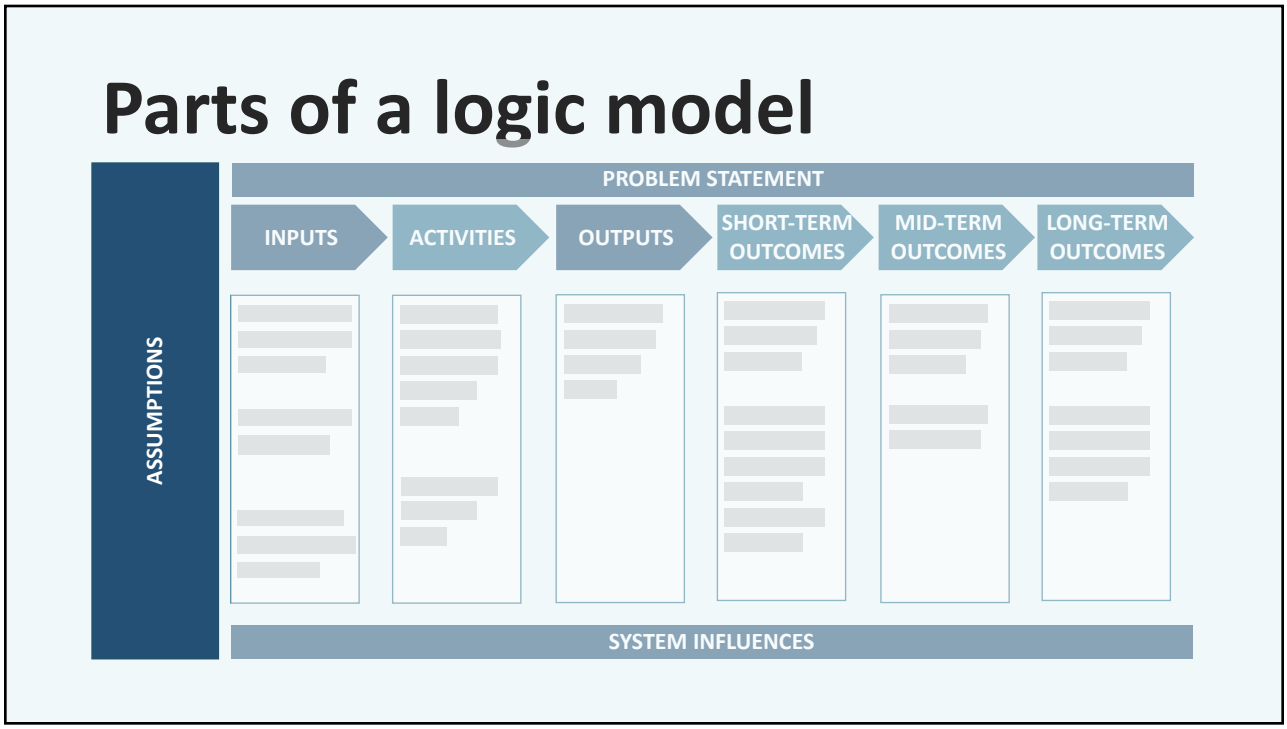
Parts of a logic model



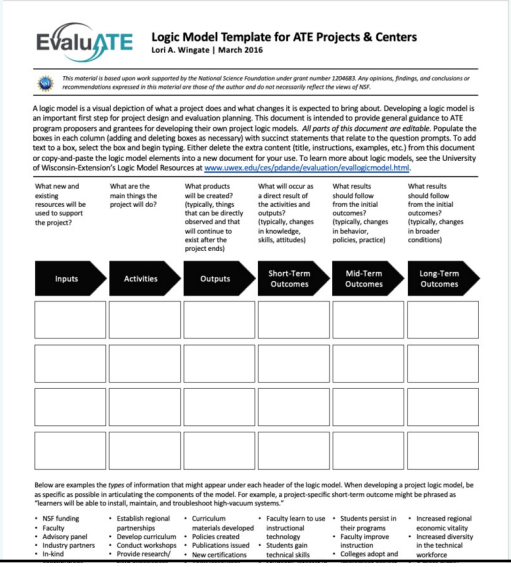

Parts of a logic model
INPUTS
ACTIVITIES
OUTPUTS
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES


Parts of a logic model
PROBLEM STATEMENT
INPUTS
ACTIVITIES
OUTPUTS
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES


Parts of a logic model
PROBLEM STATEMENT
INPUTS
ACTIVITIES
OUTPUTS
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES
SYSTEM INFLUENCES


Parts of a logic model
ASSUMPTIONS
PROBLEM STATEMENT
INPUTS
ACTIVITIES
OUTPUTS
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES
SYSTEM INFLUENCES

Parts of a logic model



EvaluATE **Logic Model Template for ATE Projects & Centers**
Lori A. Wingate | March 2016

This material is based upon work supported by the National Science Foundation under grant number 1204683. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of NSF.

A logic model is a visual depiction of what a project does and what changes it is expected to bring about. Developing a logic model is an important first step for project design and evaluation planning. This document is intended to provide general guidance to ATE program proposers and grantees for developing their own project logic models. *All parts of this document are editable.* Populate the boxes in each column (adding and deleting boxes as necessary) with succinct statements that relate to the question prompts. To add text to a box, select the box and begin typing. Either delete the extra content (title, instructions, examples, etc.) from this document or copy-and-paste the logic model elements into a new document for your use. To learn more about logic models, see the University of Wisconsin-Extension's Logic Model Resources at www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html.

Inputs	Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
What new and existing resources will be used to support the project?	What are the main things the project will do?	What products will be created? (typically, things that can be directly observed and that will continue to exist after the project ends)	What will occur as a direct result of the activities and outputs? (typically, changes in knowledge, skills, attitudes)	What results should follow from the initial outcomes? (typically, changes in behavior, policies, practice)	What results should follow from the initial outcomes? (typically, changes in broader conditions)

Below are examples the *types* of information that might appear under each header of the logic model. When developing a project logic model, be as specific as possible in articulating the components of the model. For example, a project-specific short-term outcome might be phrased as "learners will be able to install, maintain, and troubleshoot high-vacuum systems."

Inputs	Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
• NSF funding • Faculty • Advisory panel • Industry partners • In-kind	• Establish regional partnerships • Develop curriculum • Conduct workshops • Provide research/	• Curriculum materials developed • Policies created • Publications issued • New certifications	• Faculty learn to use instructional technology • Students gain technical skills	• Students persist in their programs • Faculty improve instruction • Colleges adopt and	• Increased regional economic vitality • Increased diversity in the technical workforce

evalu-ate.org/template/logic-model-template

Logic models come in different shapes and sizes!

Slides available at:
https://evalu-ate.org/webinar/august21/

The Evaluation Group
Dynamic Program Evaluation

ABC STEM Logic Model

VISION: ABC STEM will increase and improve culturally responsive STEM out-of-school programming, aligned with in-school curricula, to prepare high-need middle-school students, academically and social-emotionally, for STEM postsecondary education and careers.

Resources	Strategies	Activities	Outputs	Short-Term Outcomes	Long-Term Outcomes
ABC STEM Site Staff Grant and Match Funding ABC Public Schools (ABCPS) ABC After School Alliance Professional Learning Consultants VISTA personnel Corporate Partnerships ABC STEM Network	1) Employ a collaborative, continuous performance feedback cycle to encourage innovative, customized site-based strategies and supports within a framework for implementation	• Conduct site needs assessments • Develop collaborative action plans • Align STEM programming with school curricula • Offer customized program-wide and site-specific PL and coaching • Host Communities of Practice • Recruit additional ABC STEM sites	• # of sites that implement needs assessments with fidelity • # of staff who receive PL • # of PL opportunities customized as the result of the continuous performance feedback loop • #/% of staff who implement strategies reflective of PL and who indicate positive impact from PL • # of programs with implementation fidelity • % of high quality Action Plans • # of student participants in ABC STEM	Increased student interest in STEM Increased student social-emotional skills Increased student attendance Increased grade promotion	**Improved Student Achievement** • Improved student STEM achievement scores for ALL students • Increased student postsecondary aspirations for STEM education and careers **Replication and Scaling** • Develop a sustainable and replicable model that capitalizes on existing assets and thrives in a multitude of settings
	2) Implement culturally responsive STEM programming to increase students' STEM college and career aspirations and exposure	• Implement culturally responsive STEM curriculum aligned to school curriculum • Use the ACT Framework to build social-emotional learning skills • Provide hands-on, experiential learning (i.e., field trips to STEM businesses, mentorships, and onsite program participation with STEM professionals)	• #/% of students enrolled in STEM high school courses • #/% of programs aligned with school curricula • # of program-school collaboration opportunities • #/% students demonstrating improved academic achievement and social-emotional skills • #/% of students who report STEM postsecondary aspirations • # of ABC STEM and non-ABC STEM sites, students served, high-need students served, and field trips to local STEM businesses • # of STEM professionals engaging with students through STEM		

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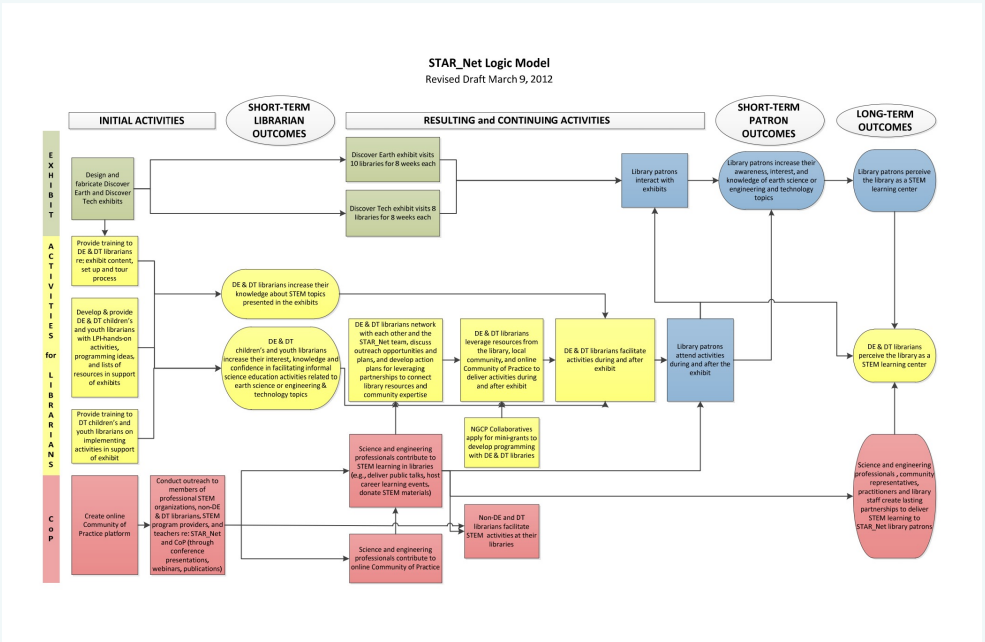

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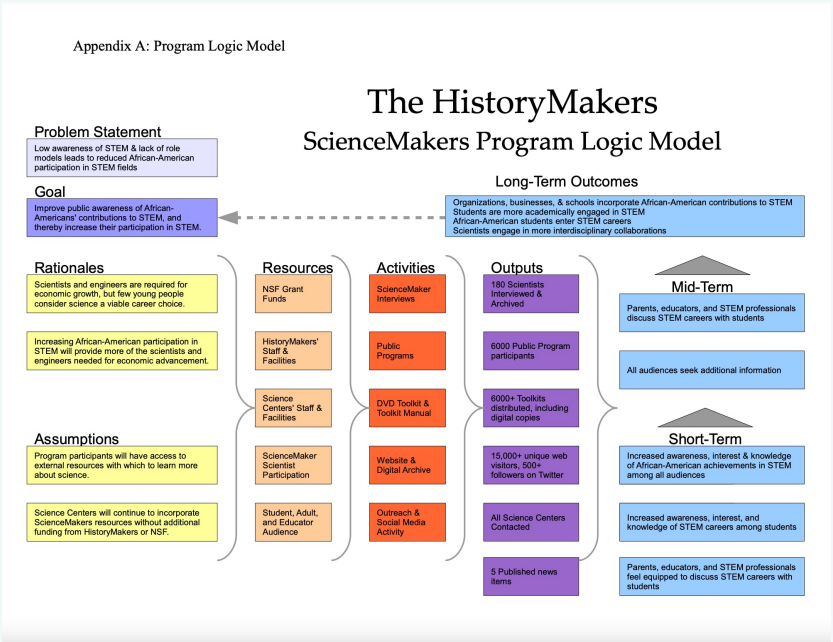

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https://usaidlearninglab.org/lab-notes/what-thing-called-theory-change

Slides available at:
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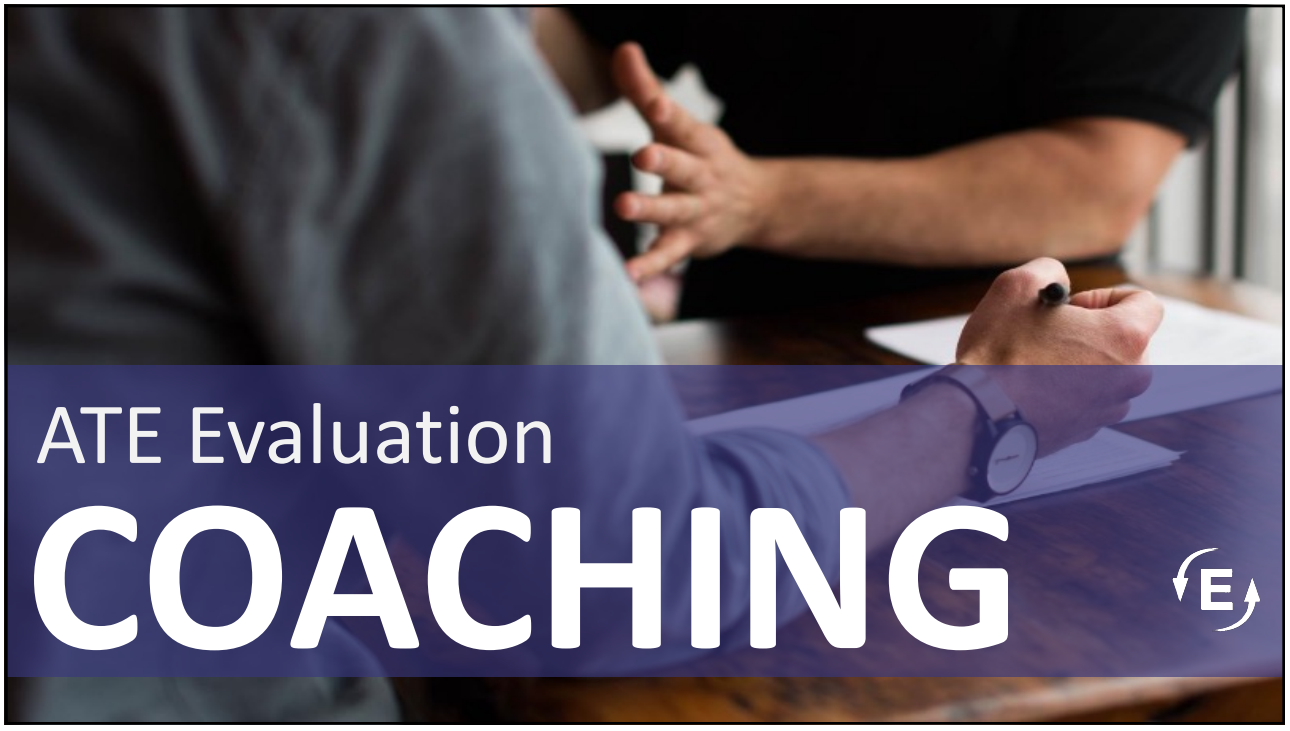
Questions?

Emma

Lyssa



Using Logic Models

How to use a logic model?

Slides available at:
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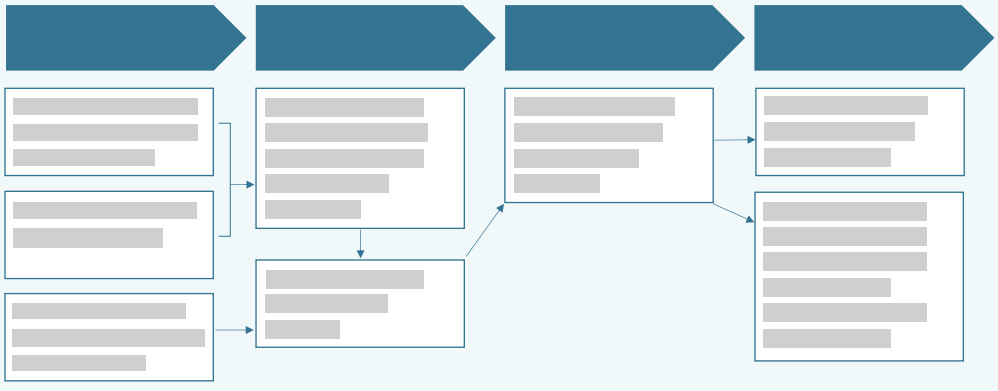
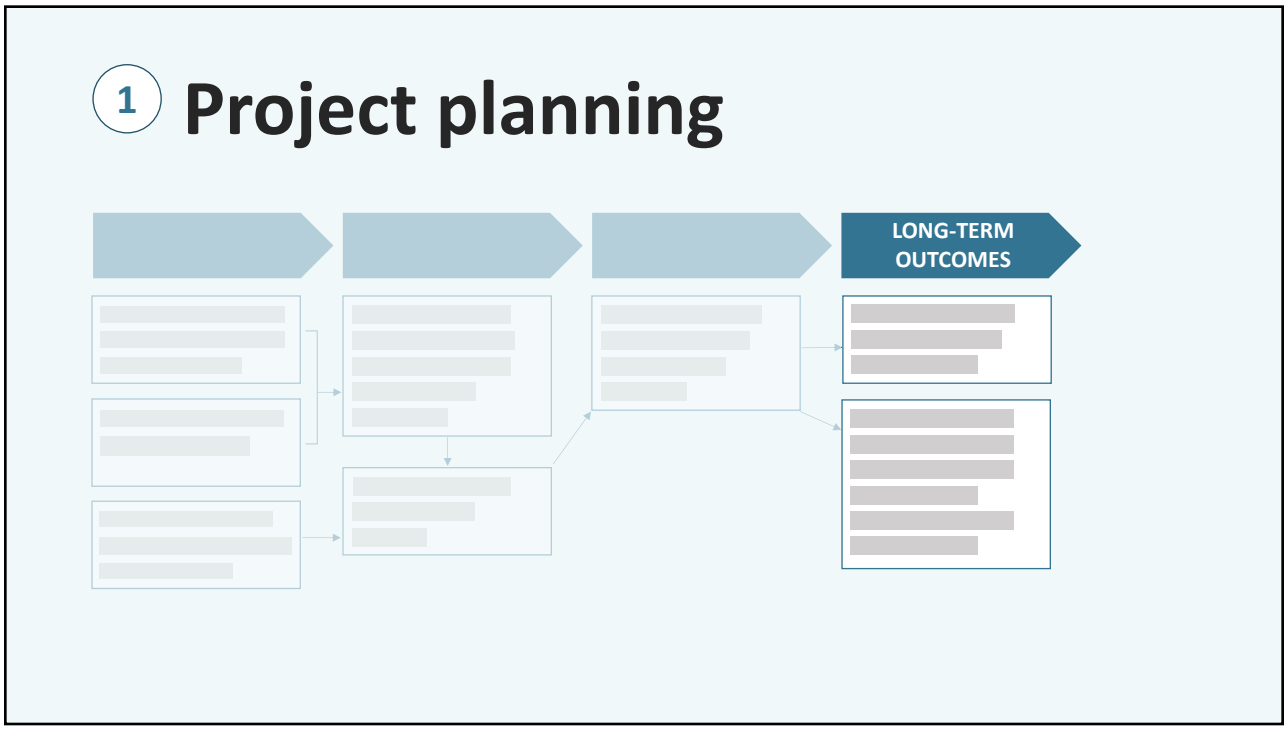
Chat

Do you start your logic model from the activities column or from the outcomes column?

1 Project planning

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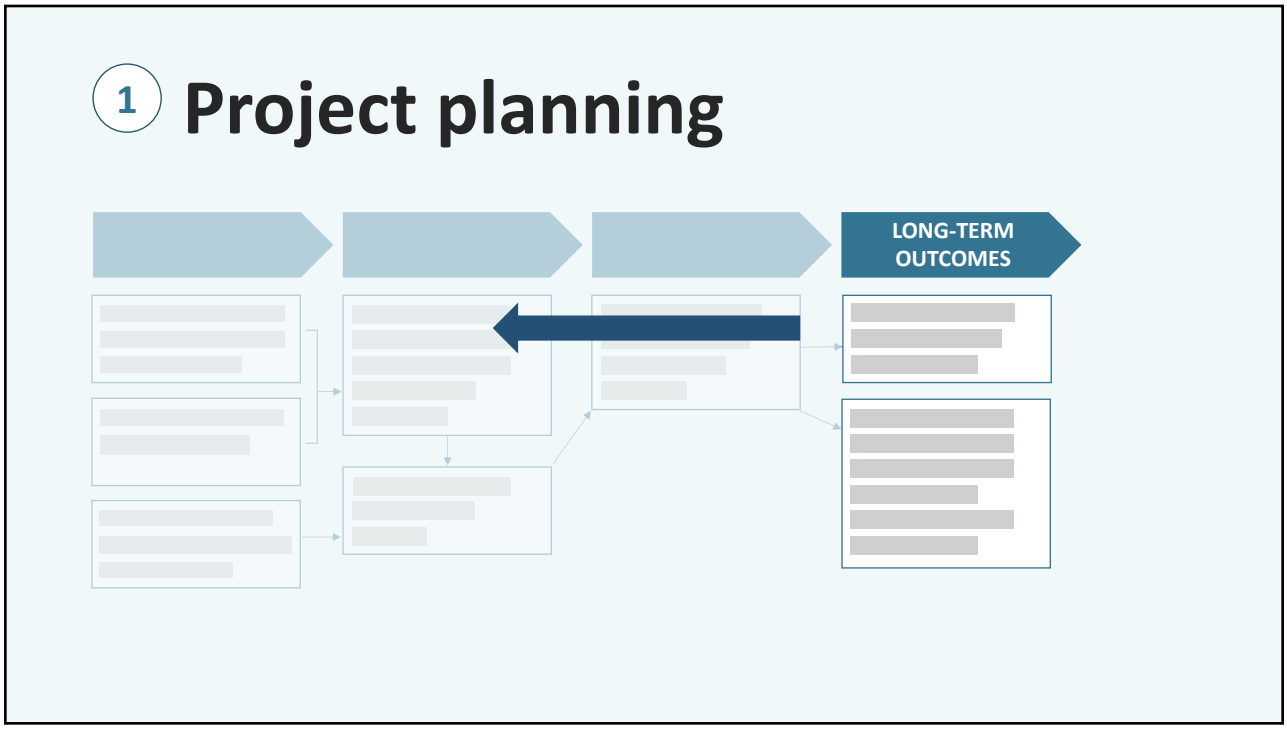
Project planning
LONG-TERM OUTCOMES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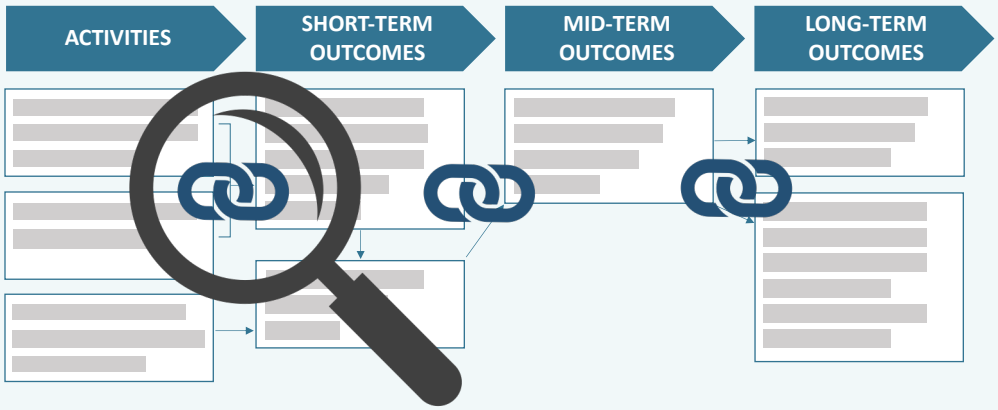
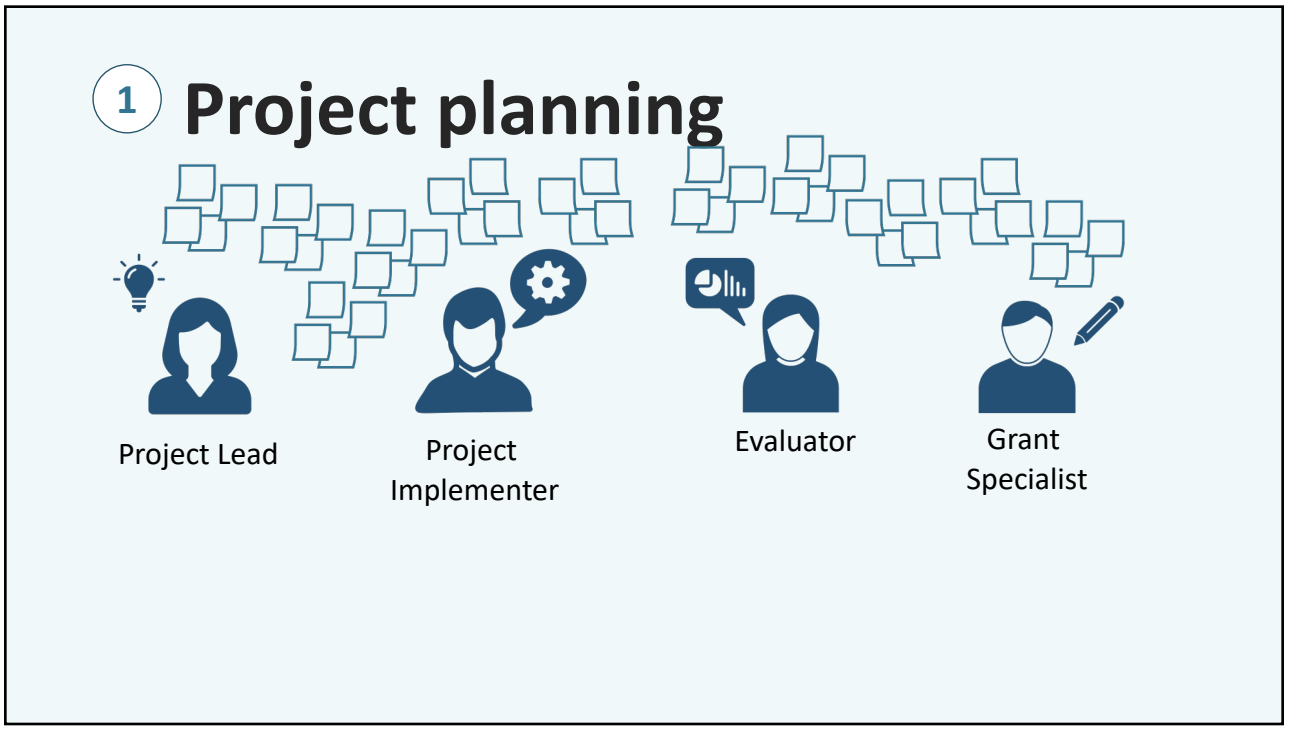
Project planning
LONG-TERM OUTCOMES

1 Project planning



1 Project planning

Shared understanding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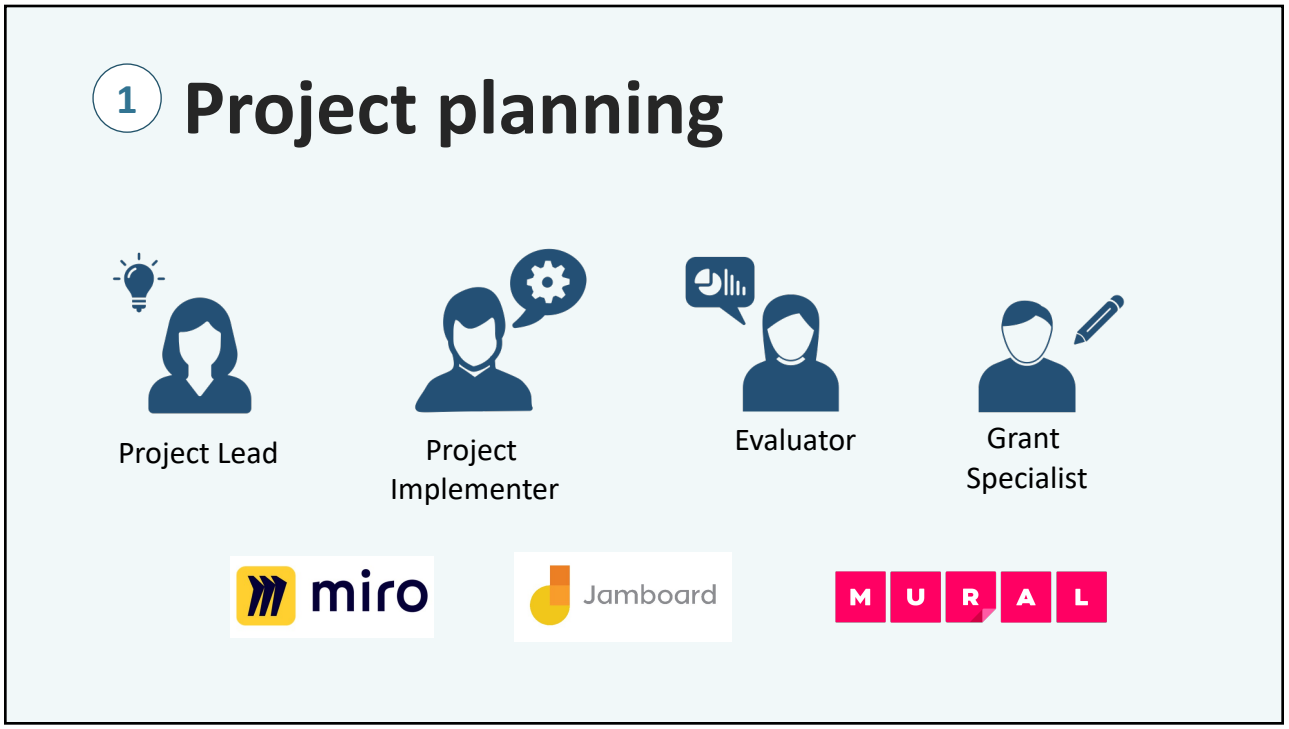
Project planning
Project Lead
Project Implementer
Evaluator
Grant Specialist


1
Project planning
Project Lead
Project Implementer
Evaluator
Grant Specialist
miro
Jamboard
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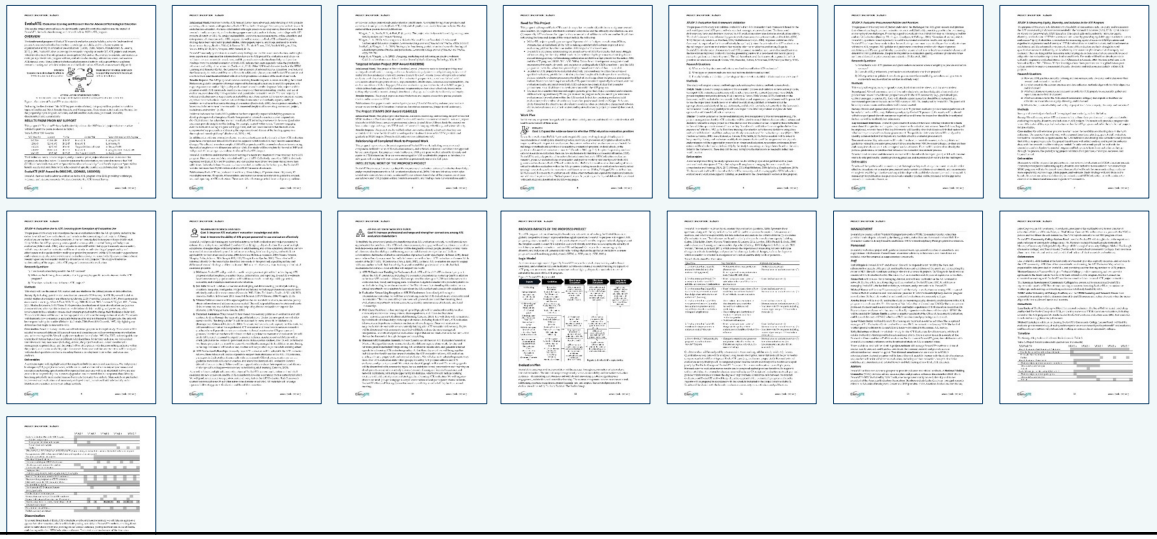
2 Proposal writing

2 Proposal writing



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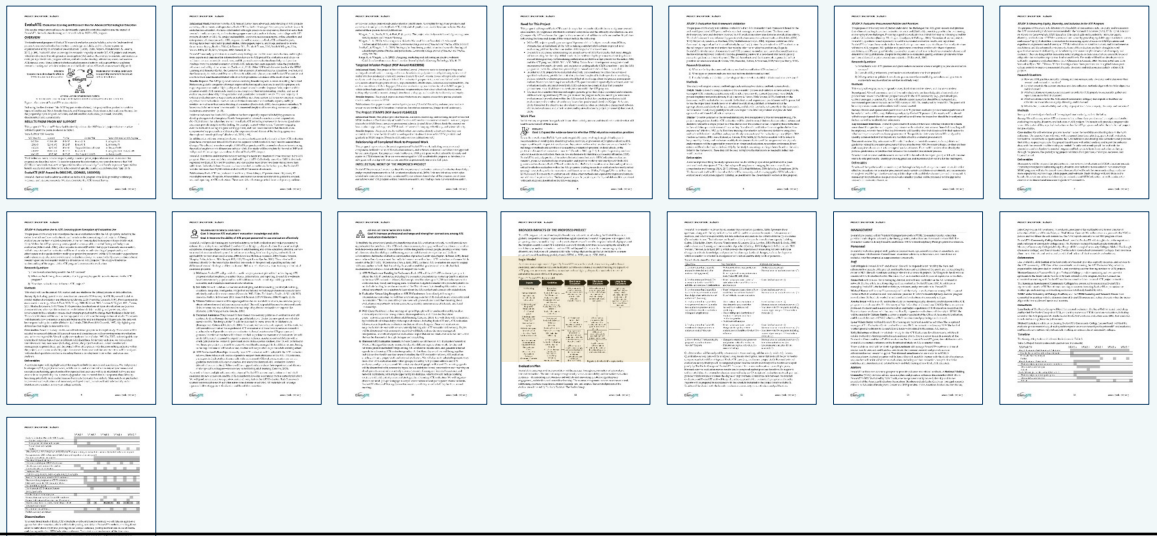

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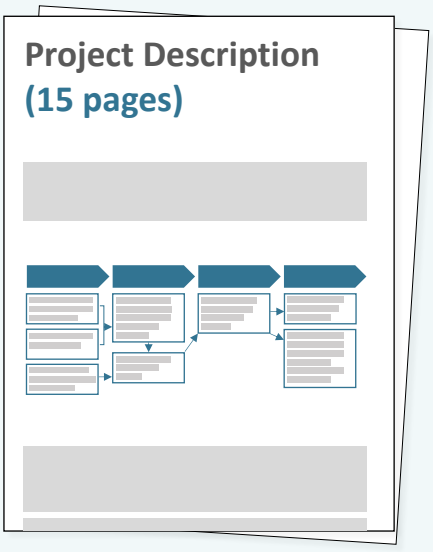
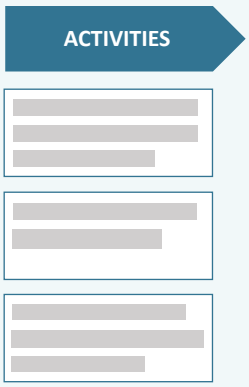
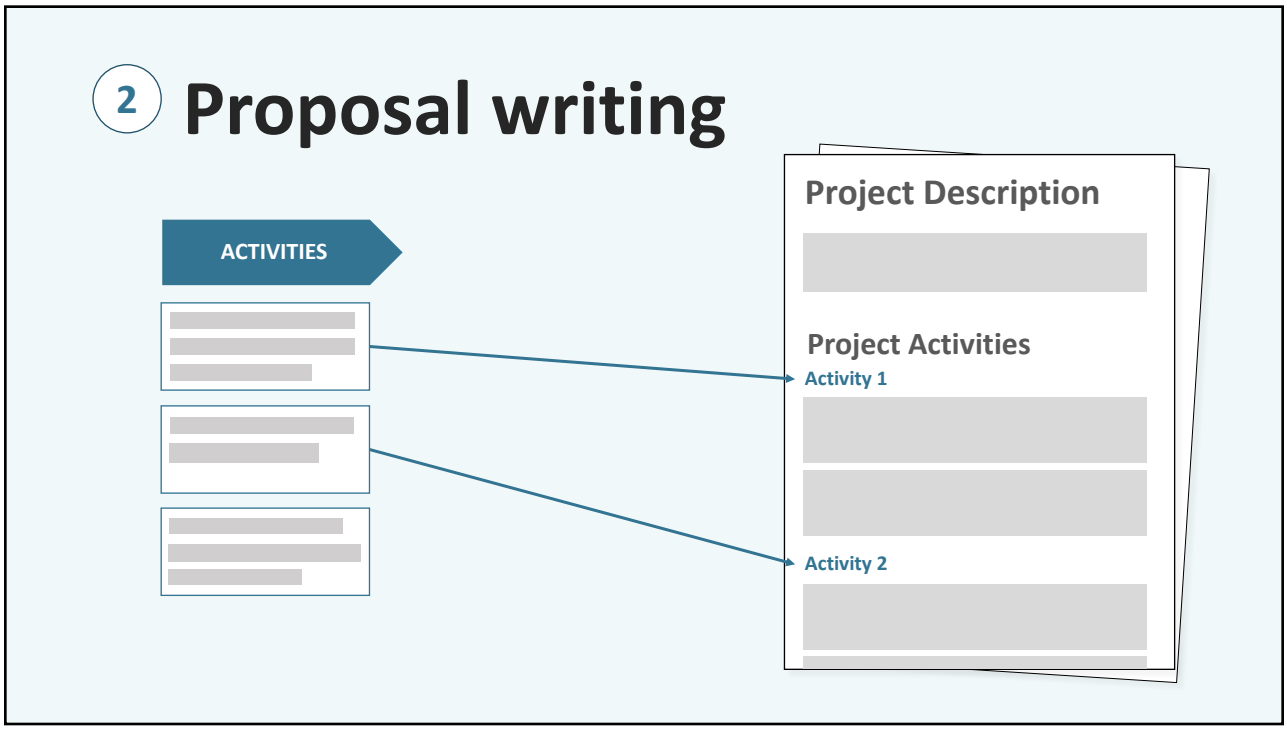
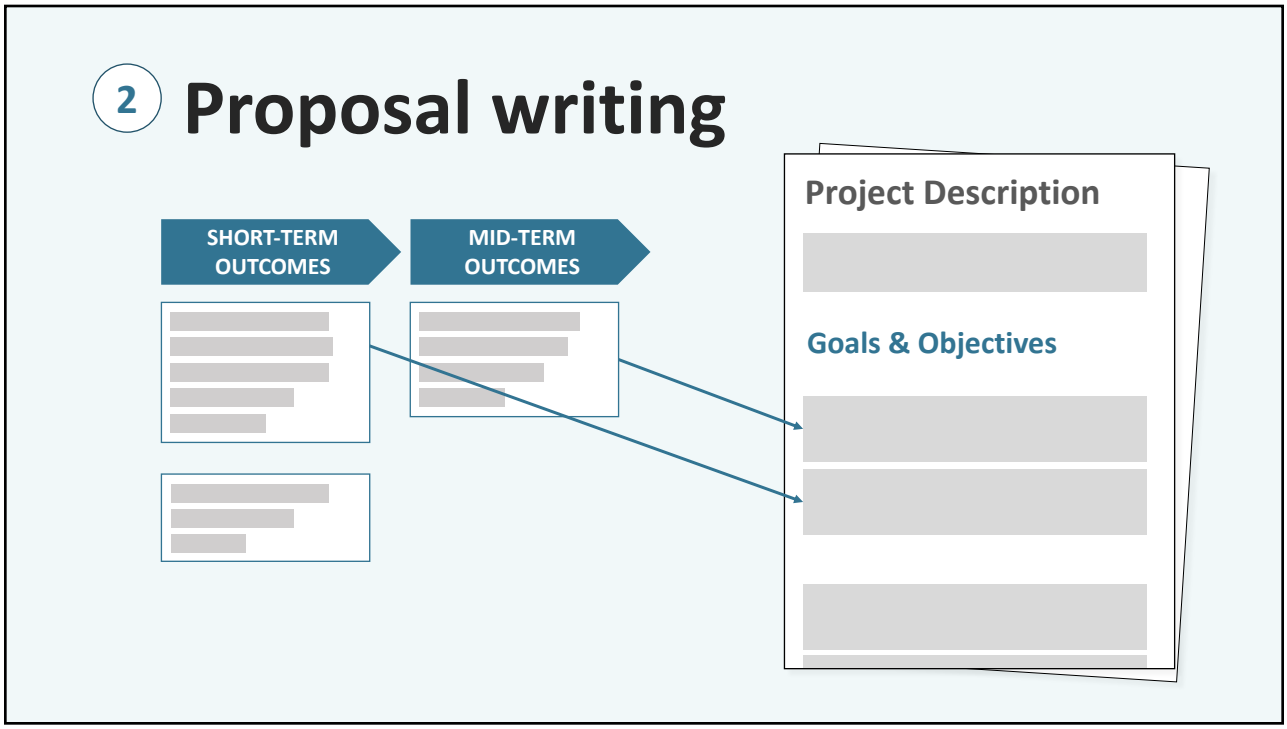


2 Proposal writing

2 Proposal writing




2
Proposal writing
ACTIVITIES
Project Description
Project Activities
Activity 1
Activity 2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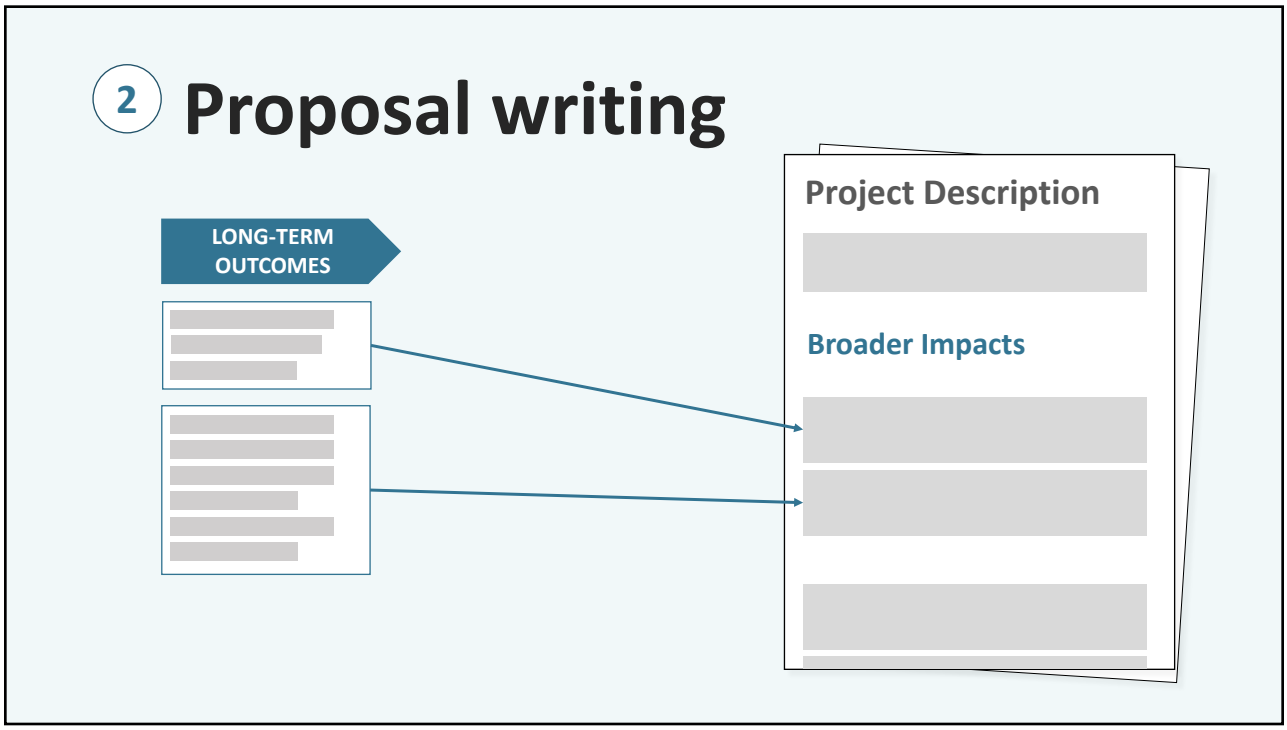
Proposal writing
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
Project Description
Goals & Objectives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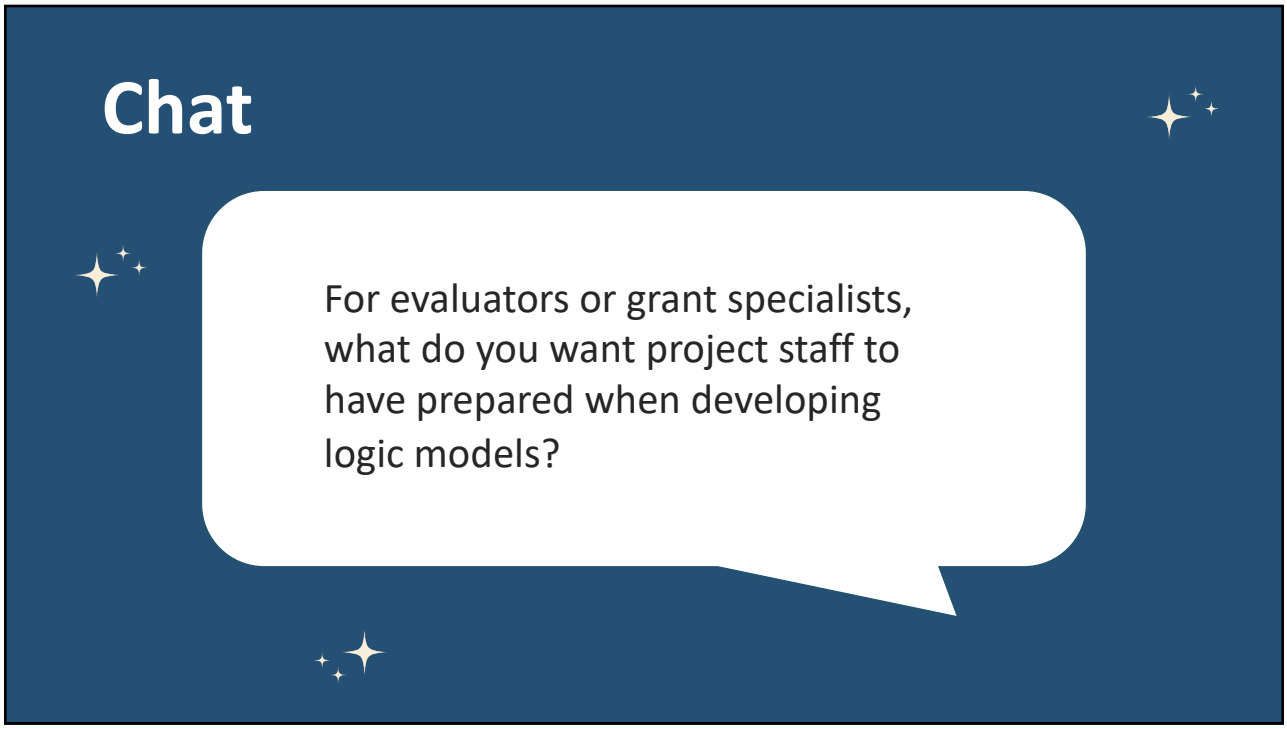
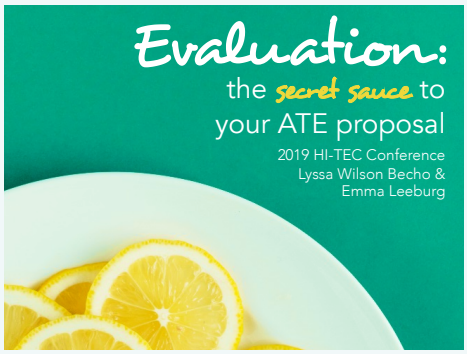
Proposal writing
LONG-TERM OUTCOMES
Project Description
Broader Impacts


Chat
For evaluators or grant specialists, what do you want project staff to have prepared when developing logic models?

2 Proposal writing



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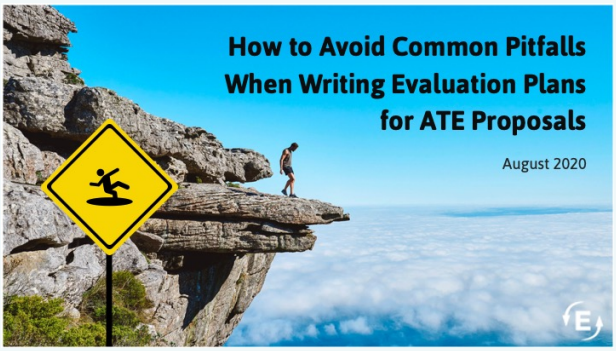

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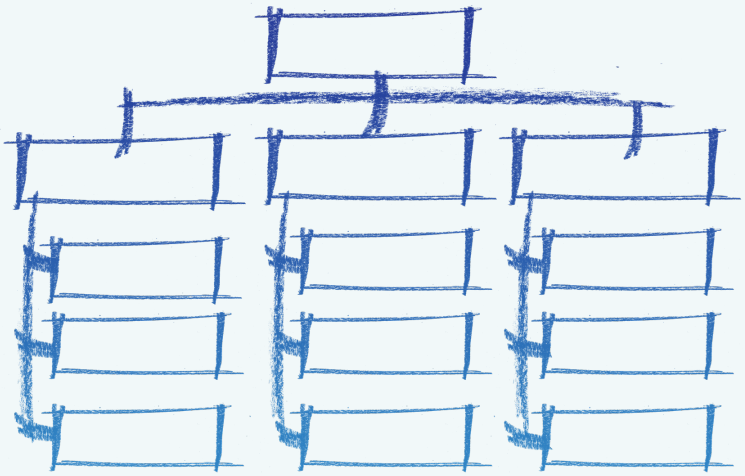
Questions?

Emma

Lyssa

Slides available at:
https://evalu-ate.org/webinar/august21/

3 Evaluation planning



Evaluation:

A systematic determination of a project's quality and effectiveness.

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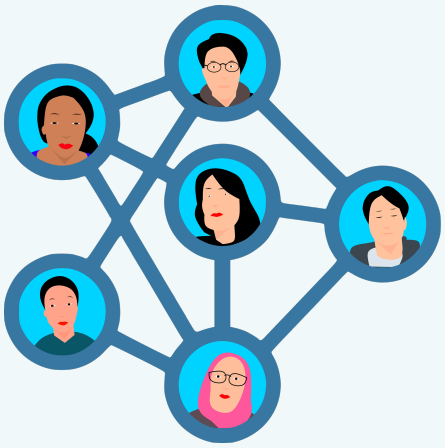
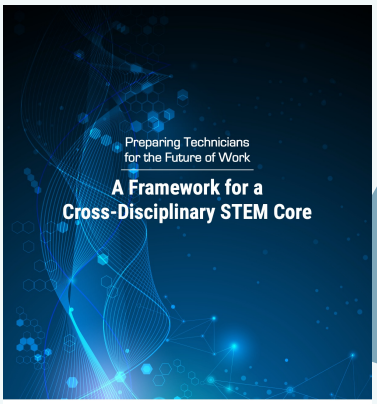
3 Evaluation planning

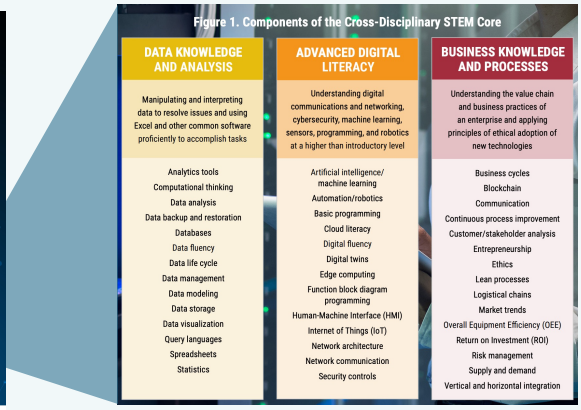
Preparing Educators for Cross-Disciplinary STEM Teams



3 Evaluation planning

Preparing Educators for Cross-Disciplinary STEM Teams



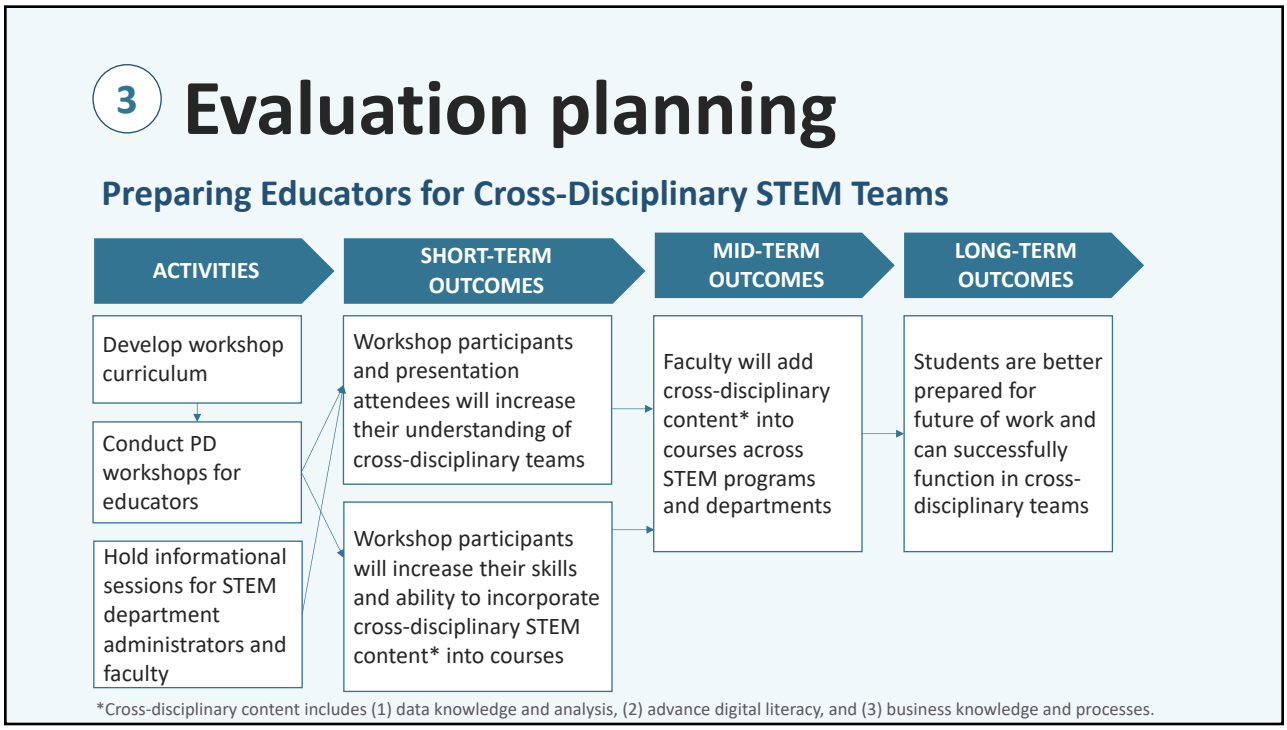


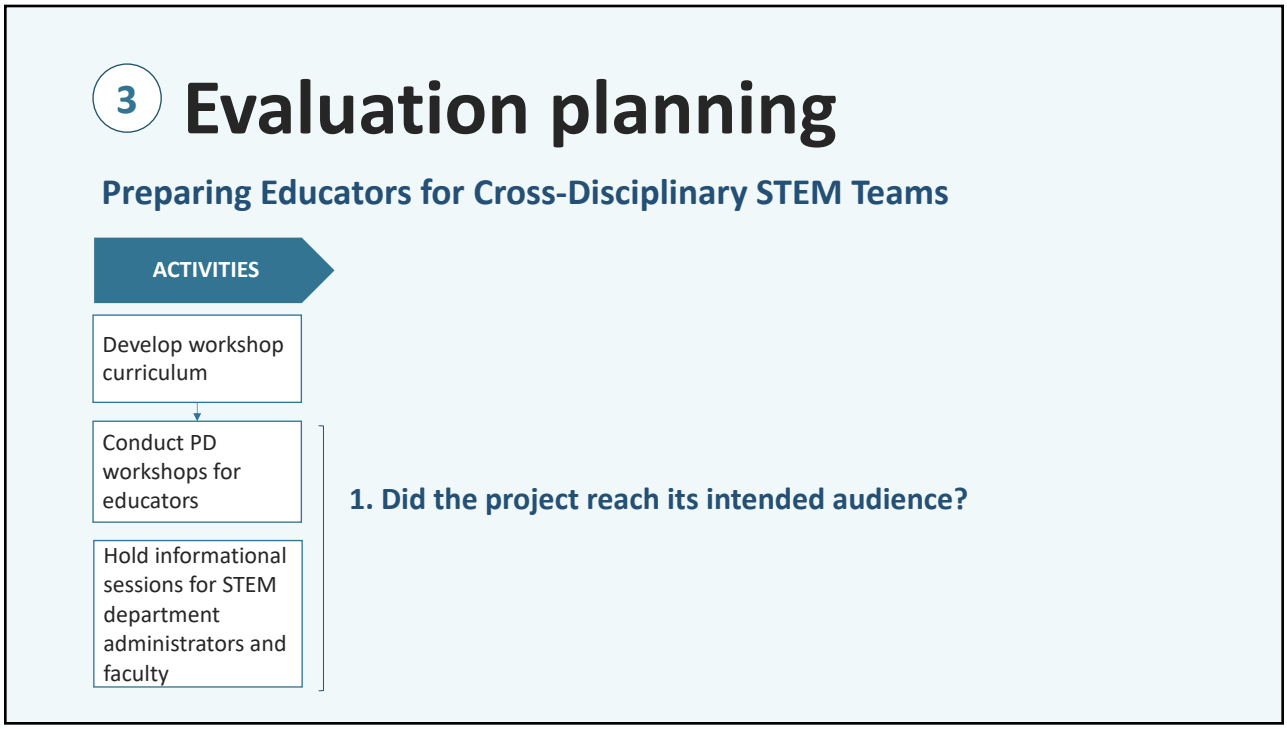
Preparing Technicians for the FUTURE OF WORK

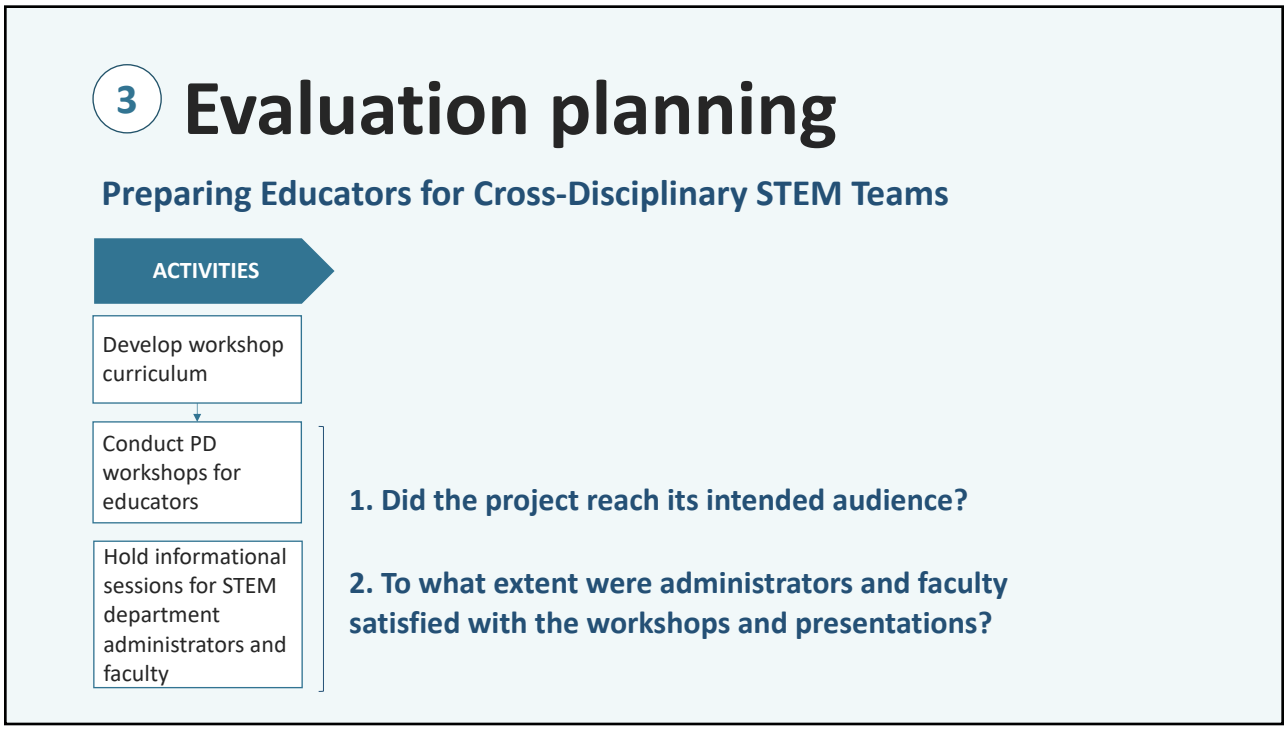
CORD Leading Change in Education

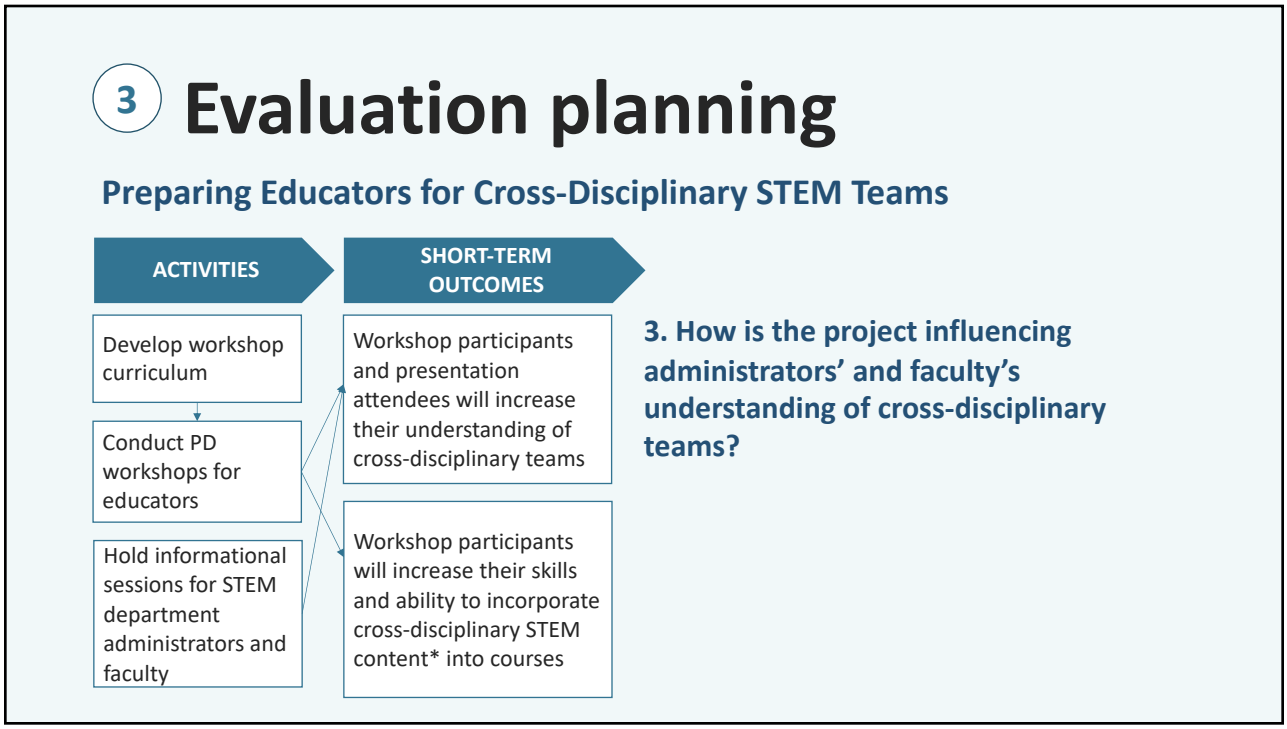
dev.cord.org/cross-disciplinary-stem-core/

Slides available at:
https://evalu-ate.org/webinar/august21/


3
Evaluation planning
Preparing Educators for Cross-Disciplinary STEM Teams
ACTIVITIES
SHORT-TERM OUTCOMES
MID-TERM OUTCOMES
LONG-TERM OUTCOMES
Develop workshop curriculum
Conduct PD workshops for educators
Hold informational sessions for STEM department administrators and faculty
Workshop participants and presentation attendees will increase their understanding of cross-disciplinary teams
Workshop participants will increase their skills and ability to incorporate cross-disciplinary STEM content* into courses
Faculty will add cross-disciplinary content* into courses across STEM programs and departments
Students are better prepared for future of work and can successfully function in cross-disciplinary teams
*Cross-disciplinary content includes (1) data knowledge and analysis, (2) advance digital literacy, and (3) business knowledge and processes.


3
Evaluation planning
Preparing Educators for Cross-Disciplinary STEM Teams
ACTIVITIES
Develop workshop curriculum
Conduct PD workshops for educators
Hold informational sessions for STEM department administrators and faculty
1. Did the project reach its intended audience?





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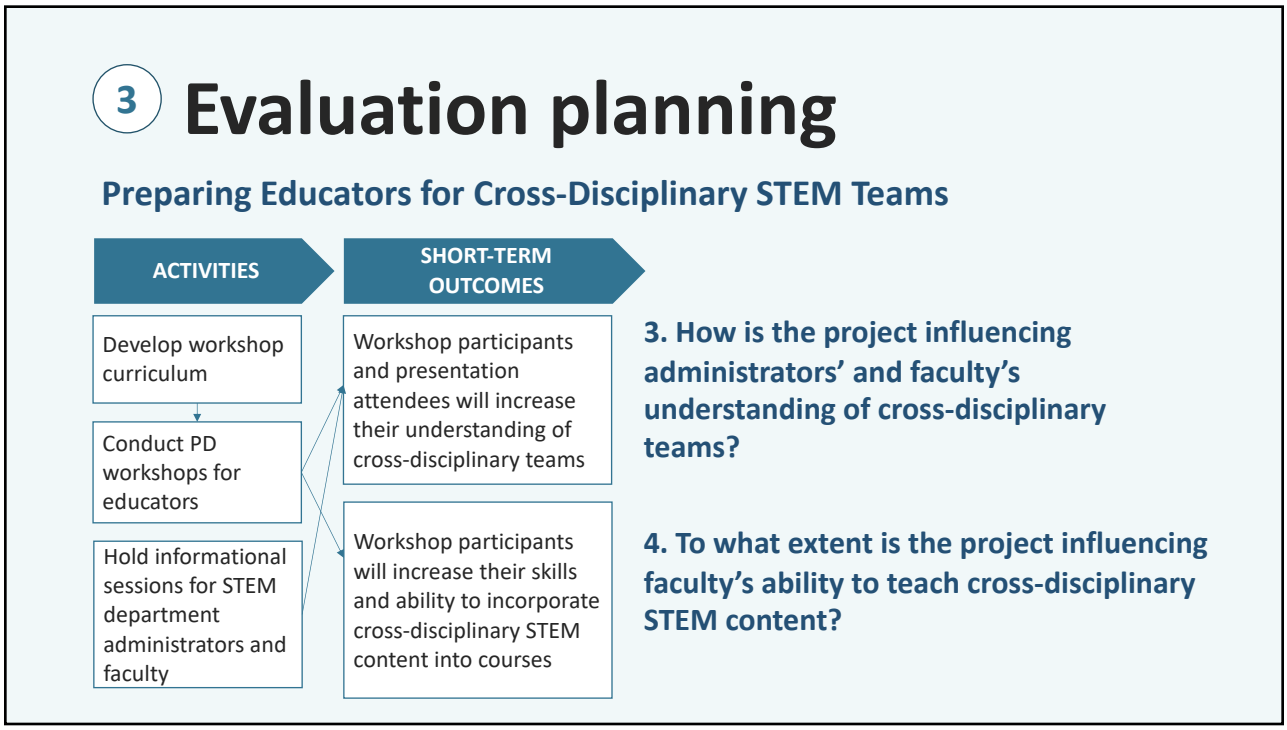
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Preparing Educators for Cross-Disciplinary STEM Teams
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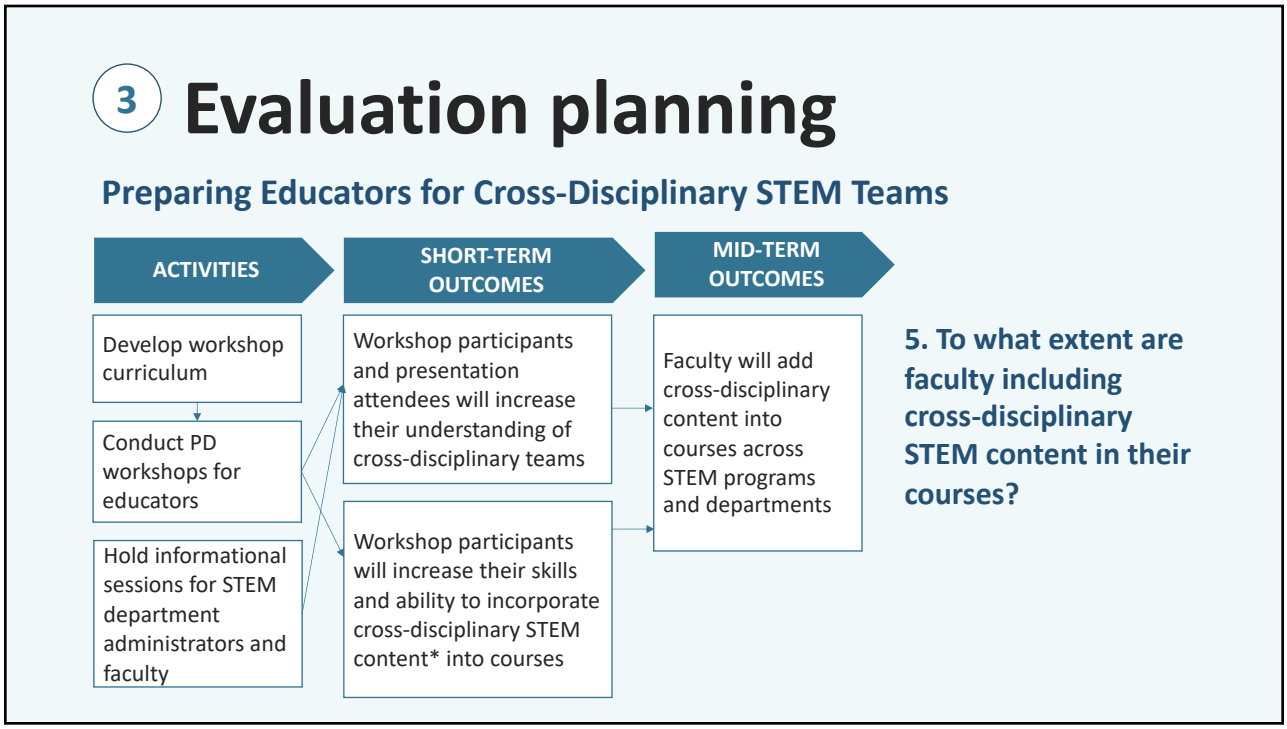
Workshop participants and presentation attendees will increase their understanding of cross-disciplinary teams
Workshop participants will increase their skills and ability to incorporate cross-disciplinary STEM content into courses
3. How is the project influencing administrators' and faculty's understanding of cross-disciplinary teams?
4. To what extent is the project influencing faculty's ability to teach cross-disciplinary STEM content?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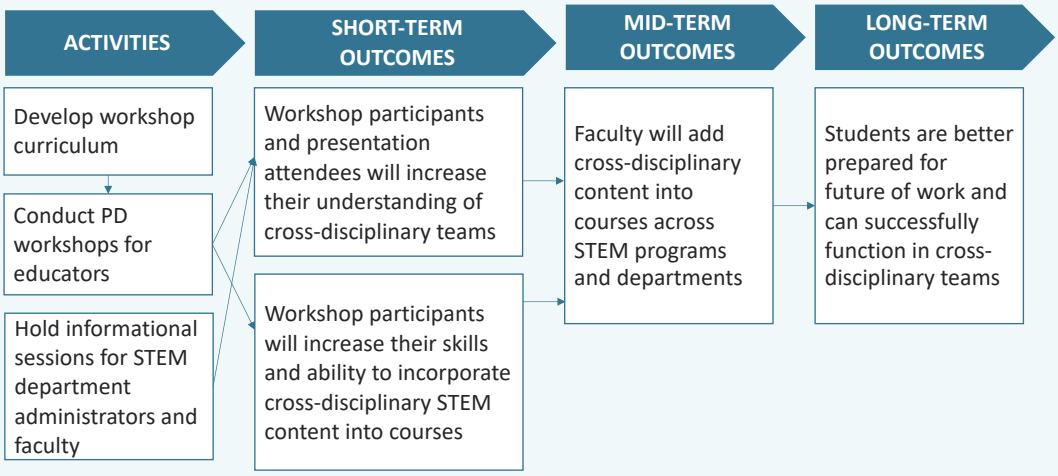
5. To what extent are faculty including cross-disciplinary STEM content in their courses?

3 Evaluation planning

Preparing Educators for Cross-Disciplinary STEM Teams



3 Evaluation planning

Preparing Educators for Cross-Disciplinary STEM Teams

Evaluation Questions

1. Did the project reach its intended audience?
2. To what extent were administrators and faculty satisfied with the workshops and presentations?
3. How is the project influencing administrators' and faculty's understanding of cross-disciplinary teams?
4. To what extent is the project influencing faculty's ability to teach cross-disciplinary STEM content?
5. To what extent are faculty including cross-disciplinary STEM content in their courses?

3 Evaluation planning

Preparing Educators for Cross-Disciplinary STEM Teams

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Process

3 Evaluation planning

Preparing Educators for Cross-Disciplinary STEM Teams

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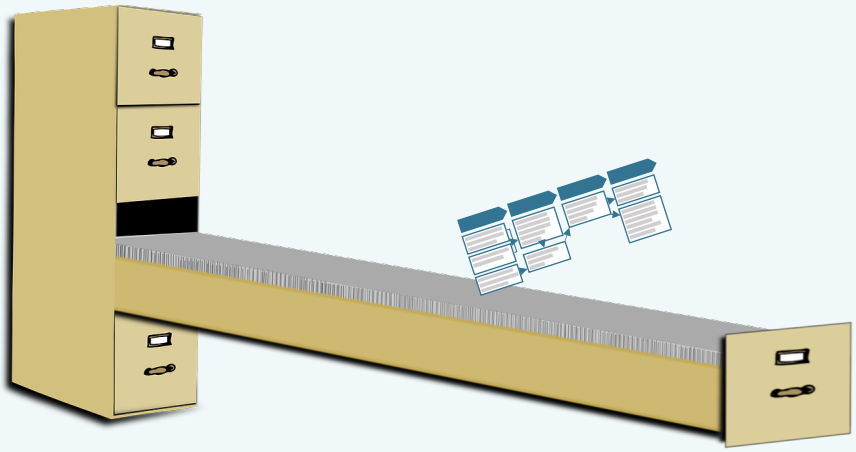
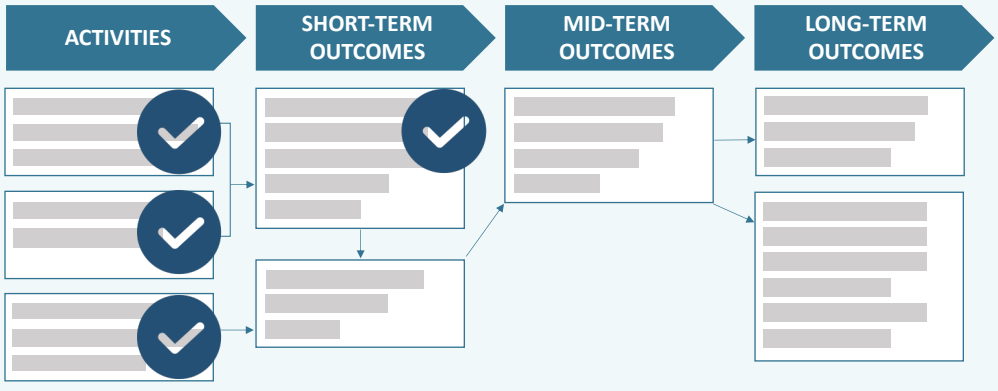
Process

Outcome

4 Project management



4 Project management



Chat

How have you revisited your logic models for project management or evaluation?

Logic models

- Align project details to overarching goals.
- Help identify gaps in program logic and clarify assumptions.
- Build understanding and promote consensus.
- Helps proposals stand out.
- Summarizes complex project effectively.

Post-webinar Survey

Questions?

Emma

Lyssa

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