Evaluation:

Don't Submit Your ATE Proposal Without It

Emma Perk & Corey Smith
HI-TEC Conference 2015

INTRODUCTIONS

EvaluATE

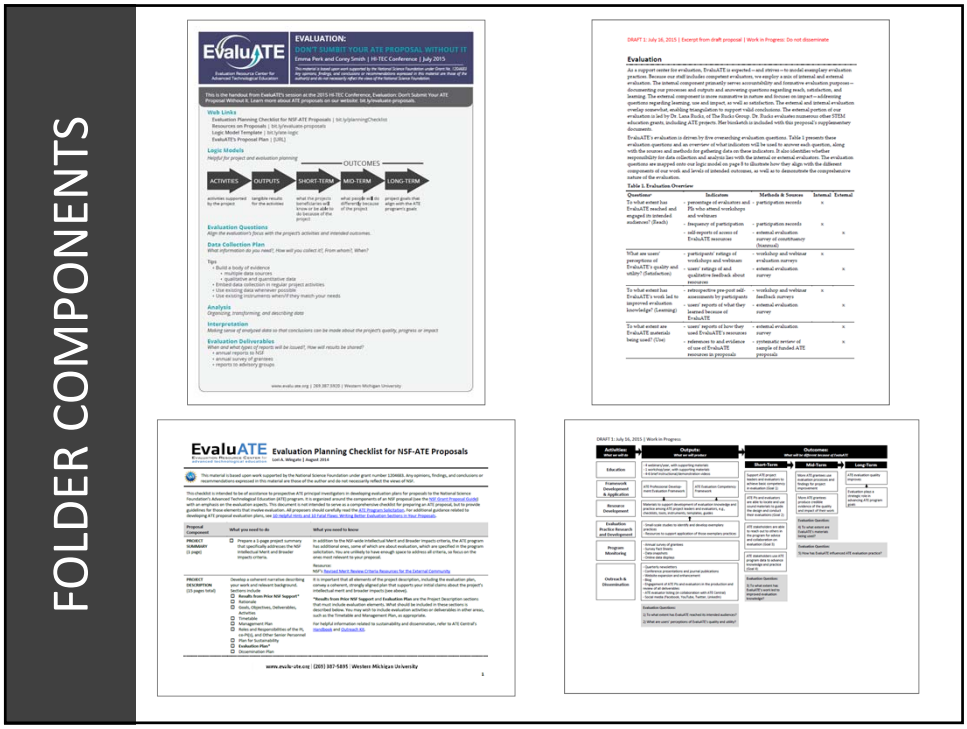
Evaluation Resource Center for
Advanced Technological Education

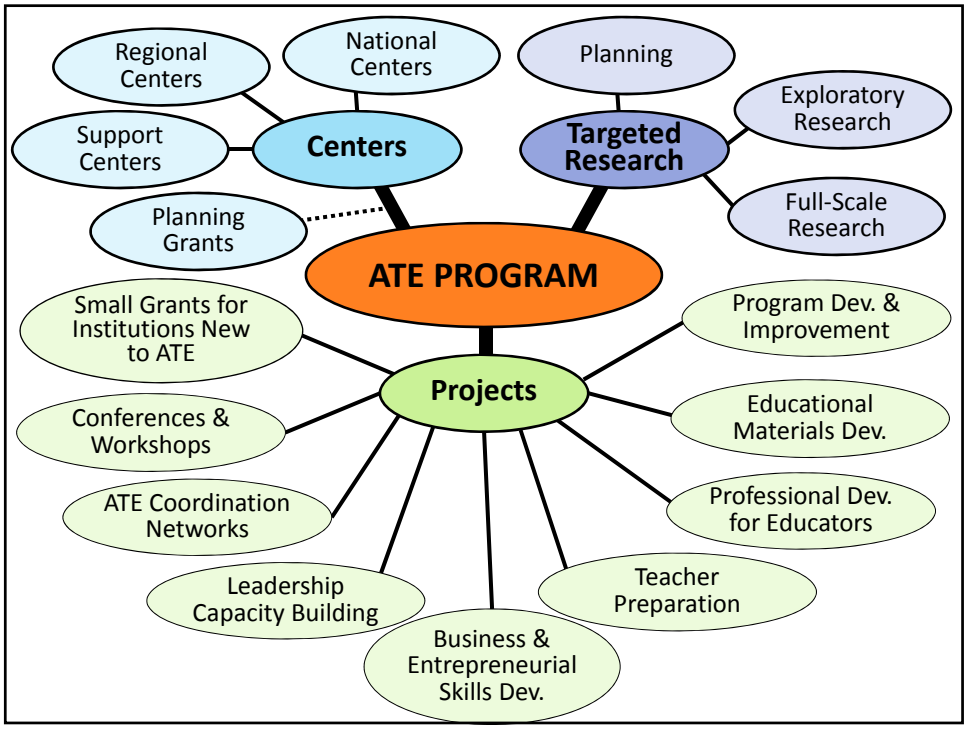
Western Michigan University

THE EC EVALUATION CENTER

NSF

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 presenters and do not necessarily reflect the views of NSF.


FOLDER COMPONENTS
EvaluATE
EVALUATION:
DON'T SUBMIT YOUR ATE PROPOSAL WITHOUT IT
Emma Perk and Corey Smith | Hi-TEC Conference | July 2015
Web Links
Logic Models
OUTCOMES
ACTIVITIES
OUTPUTS
SHORT-TERM
MID-TERM
LONG-TERM
Evaluation Questions
Data Collection Plan
Analysis
Interpretation
Evaluation Deliverables
Evaluation
EvaluATE Evaluation Planning Checklist for NSF-ATE Proposals


Regional Centers
National Centers
Planning
Exploratory Research
Support Centers
Centers
Targeted Research
Full-Scale Research
Planning Grants
ATE PROGRAM
Small Grants for Institutions New to ATE
Program Dev. & Improvement
Projects
Conferences & Workshops
Educational Materials Dev.
ATE Coordination Networks
Professional Dev. for Educators
Leadership Capacity Building
Teacher Preparation
Business & Entrepreneurial Skills Dev.

OBJECTIVES

1. Know what evaluative elements should be included in a proposal and where
2. Understand how evaluation can be leveraged to strengthen a proposal

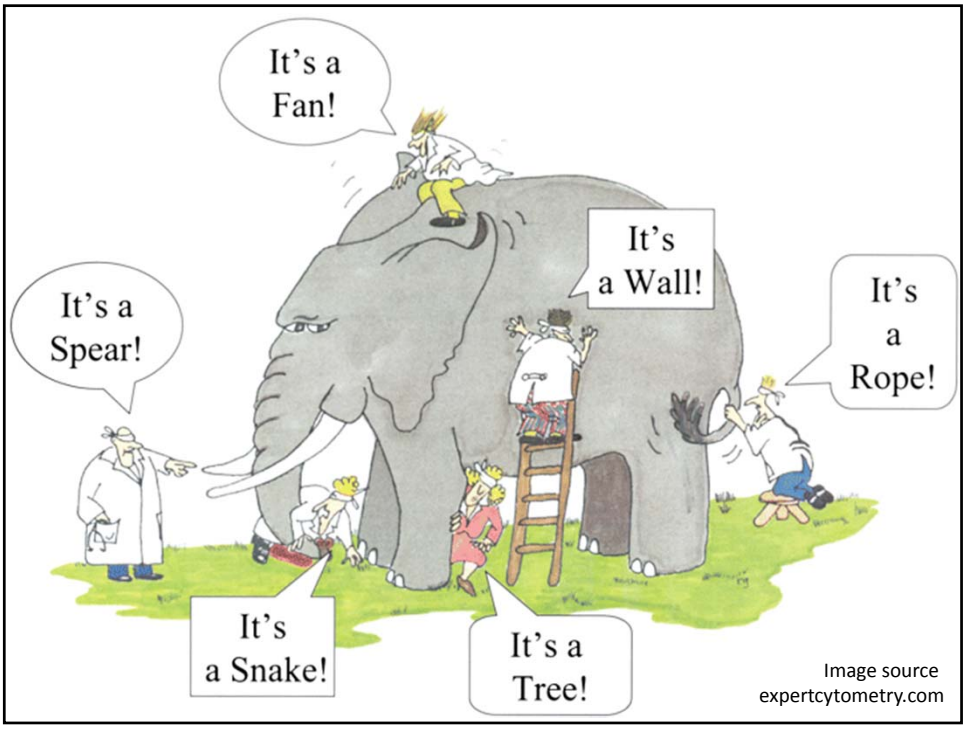
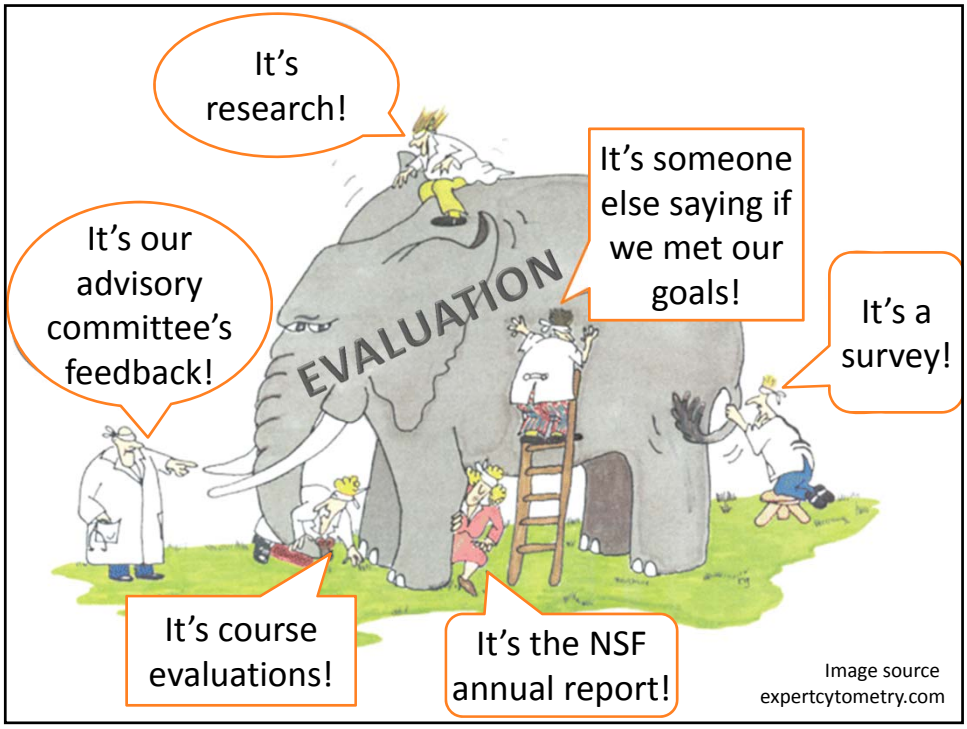
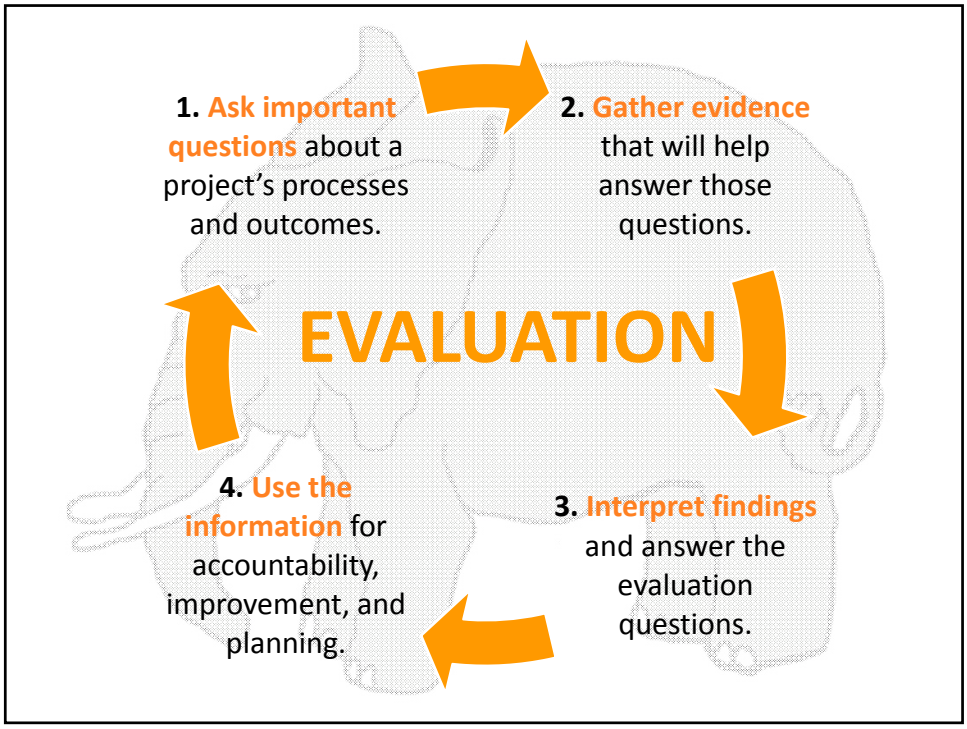


Image source expertcytometry.com



Evaluation is the systematic determination of a project's merit, worth, or significance



OBJECTIVES

1. Know what evaluative elements should be included in a proposal and where
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EvaluATE Evaluation Resource Center for advanced technological education

Evaluation Planning Checklist for NSF-ATE Proposals

Lori A. Wingate | July 2013

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This checklist is intended to be of assistance in developing evaluation plans for proposals to the National Science Foundation's Advanced Technological Education (ATE) program. It is organized around the components of an NSF proposal (see the NSF Grant Proposal Guide) with an emphasis on the evaluation aspects. All proposers should carefully read the ATE Program Solicitation. For additional guidance related to developing ATE proposal evaluation plans, see 10 Helpful Hints and 10 Fatal Flaws: Writing Better Evaluation Sections in Your Proposals. Users may also find it helpful to view EvaluATE's past webinars on integrating evaluation into ATE proposals, available from evalu-ate.org/featured_resources under "Proposal Writing."

Proposal Component	What you need to do	What you need to know
Project Summary (1 page)	☐ Prepare a 1-page project summary that specifically addresses the NSF Intellectual Merit and Broader Impacts criteria (with separate headings for each).	In addition to the NSF-wide Intellectual Merit and Broader Impacts criteria, the ATE program has additional ones, some of which are about evaluation, which are specified in the program solicitation. You are unlikely to have enough space to address all criteria, so focus on the ones most relevant to your proposal. Resource: NSF's "Merit Review Broader Impacts Criterion: Representative Activities"
Project Description (15 pages total)	Develop a coherent narrative describing your work and relevant background. Sections include ☐ **Results from Prior NSF Support*** ☐ Rationale ☐ Goals, Objectives, Deliverables, Activities ☐ Timetable ☐ Management Plan ☐ Roles and Responsibilities of the PI, co-PI(s), and Other Senior Personnel ☐ Plan for Sustainability ☐ **Evaluation Plan*** ☐ Dissemination Plan	It is important that all elements of the project description, including the evaluation plan, convey a coherent, strongly aligned plan that supports your initial claims about the project's intellectual merit and broader impacts (see above). ***Results from Prior NSF Support** and **Evaluation Plan** are the Project Description sections that must include evaluation elements. What should be included in these sections is described below. You may wish to include evaluation activities or deliverables in other areas, such as the Timetable and Management Plan, as appropriate. For helpful information related to sustainability and dissemination, refer to ATE Central's Handbook and Outreach Kit.

Organized by proposal component

PROPOSAL COMPONENTS

- ☑ Cover Sheet
- ☑ Project Summary
- ☑ Project Description
- ☑ References Cited
- ☑ Budget and Budget Justification
- ☐ Current and Pending Support
- ☐ Facilities, Equipment and Other Resources
- ☑ Supplementary Documents

Evaluation-related information is needed in these sections

PROPOSAL COMPONENTS

- ☑ Cover Sheet
- ☑ Project Summary
- ☑ Project Description ← *15-page narrative*
- ☑ References Cited
- ☑ Budget and Budget Justification
- ☐ Current and Pending Support
- ☐ Facilities, Equipment and Other Resources
- ☑ Supplementary Documents

PROJECT DESCRIPTION

- Results of Prior Support ←
- Rationale
- Goals, Objectives, Deliverables, Activities
- Timetable
- Management Plan
- Roles and Responsibilities of the PI, co-PI(s), and Other Senior Personnel
- Plan for Sustainability
- Evaluation Plan
- Dissemination Plan
- Broader Impacts (new)

PROJECT DESCRIPTION

Results of Prior Support

"specific outcomes and results including metrics to demonstrate the impact of the activities undertaken including **evidence of the quality and effectiveness of the project's deliverables**"

PROJECT DESCRIPTION

Evaluation Plan

(1-3 pages of your 15-page project description)

- ❑ Identify evaluator and briefly describe his/her experience/expertise
- ❑ Describe what will be evaluated and how

PROJECT DESCRIPTION

Evaluation Plan

(1-3 pages of your 15-page project description)

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PROJECT DESCRIPTION

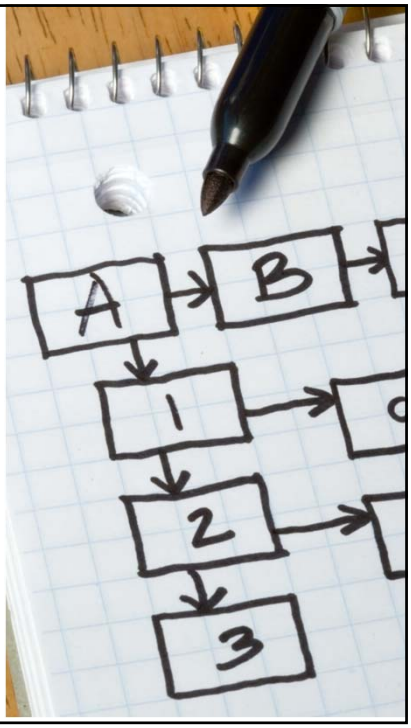
Describe the evaluation plan:

1. Logic model
2. Evaluation questions
3. Data collection plan & analysis
4. Evaluation deliverables

PROJECT DESCRIPTION

1 Logic Model

Helpful for project and evaluation planning

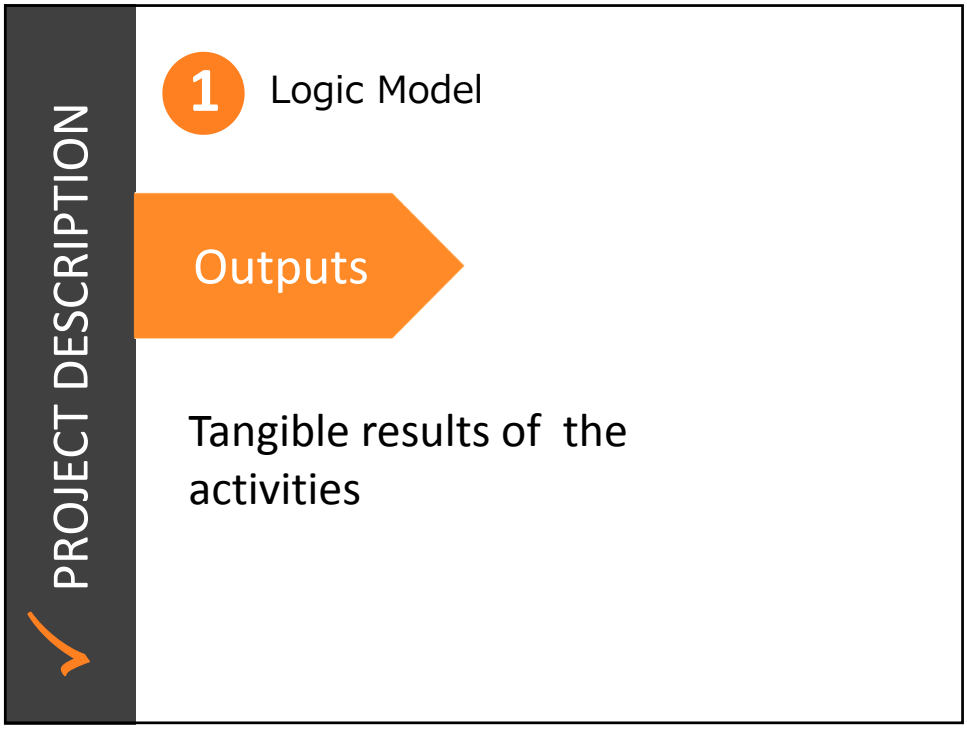


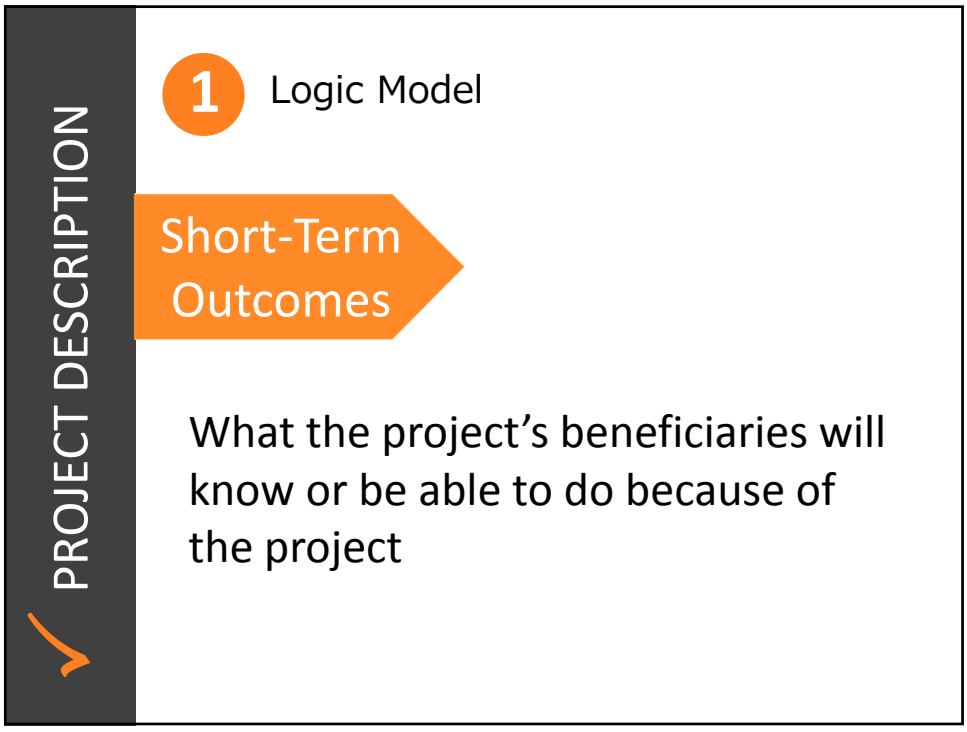
PROJECT DESCRIPTION

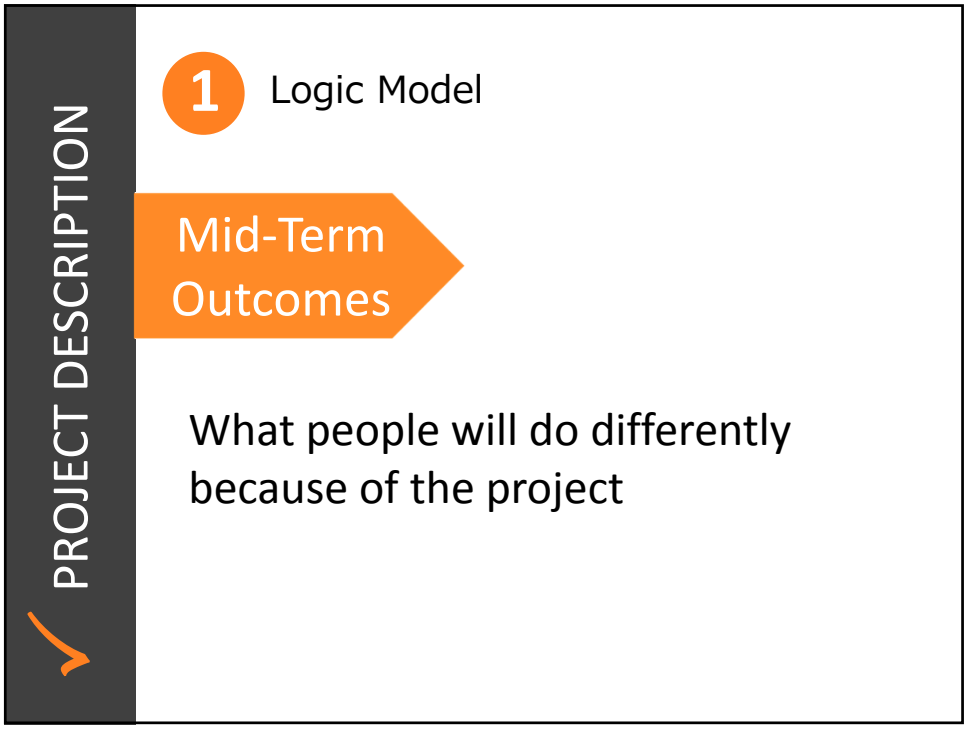
1 Logic Model

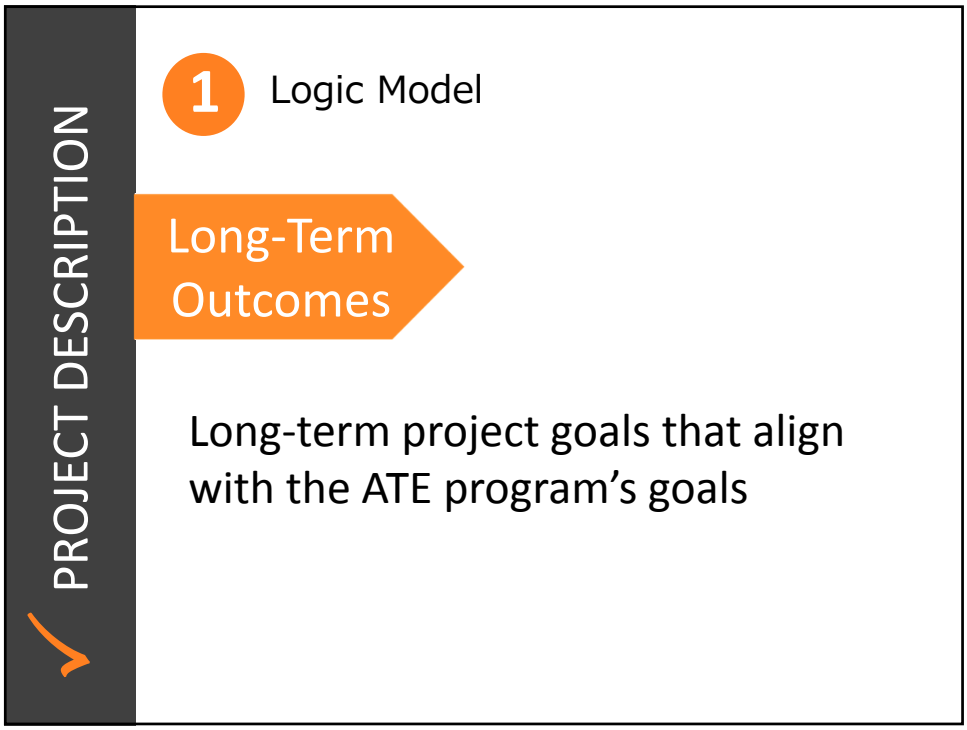
Activities

Activities supported by the project


PROJECT DESCRIPTION
1
Logic Model
Outputs
Tangible results of the activities


PROJECT DESCRIPTION
1
Logic Model
Short-Term Outcomes
What the project's beneficiaries will know or be able to do because of the project


PROJECT DESCRIPTION
1
Logic Model
Mid-Term Outcomes
What people will do differently because of the project


PROJECT DESCRIPTION
1
Logic Model
Long-Term Outcomes
Long-term project goals that align with the ATE program's goals

Example Logic Model

Renewable Energy Technology Institute

Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
Faculty workshops	Modules	Faculty gain knowledge and skills needed to teach latest renewable energy technologies	Faculty integrate new modules into existing courses	Graduates obtain jobs in renewable energy field
Follow-up support	Curriculum	Student enrollment in renewable energy technology courses and programs increases	Students develop competencies needed for renewable energy jobs	Regional demand for renewable energy technicians is met
Guest lectures				
Field trips				
Campus-wide events				

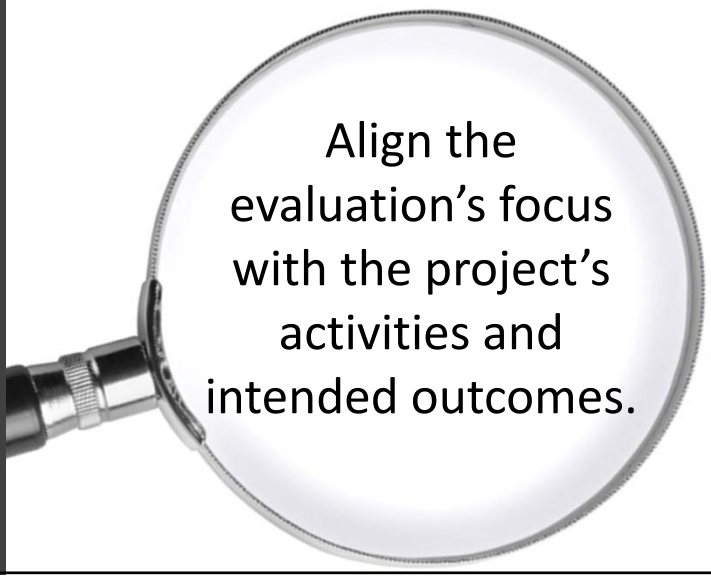
PROJECT DESCRIPTION

Describe the evaluation plan:

1. Logic model
2. Evaluation questions
3. Data collection plan & analysis
4. Evaluation deliverables

PROJECT DESCRIPTION

2 Evaluation Questions



2 Evaluation Questions

Renewal Energy Technology Institute

Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
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Guest lectures				
Field trips				
Campus-wide events				

2 Evaluation Questions

Renewal Energy Technology Institute

Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
Faculty workshops				
Follow-up support				
Guest lectures				
Field trips				
Campus-wide activities				

To what extent did the project reach its intended audience of faculty and students?

To what extent were participating faculty satisfied with the workshops and support?

2 Evaluation Questions

Renewal Energy Technology Institute

Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
	Modules			
	Curriculum			

What is the quality of the faculty-developed modules?

To what extent does the new curriculum support development of competencies needed by renewable energy technicians?

2 Evaluation Questions

Renewal Energy Technology Institute

Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
To what extent did faculty acquire the necessary knowledge/ skills to teach the latest renewable energy technologies?		Faculty gain knowledge and skills needed to teach latest renewable energy technologies	How has the project impacted enrollment in renewable energy programs and courses?	
		Student enrollment in renewable energy technology courses and programs increases		

2 Evaluation Questions

Renewal Energy Technology Institute

Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
To what extent did faculty integrate new modules into their courses?			Faculty integrate new modules into existing courses	
To what extent do students develop the competencies needed for renewable energy jobs?			Students develop competencies needed for renewable energy jobs	

2 Evaluation Questions

Renewal Energy Technology Institute

To what extent do students with renewable energy certificates and degrees obtain renewable energy jobs?

How has the project contributed to meeting the regional demand for renewable energy technicians?

Graduates obtain jobs in renewable energy field

Regional demand for renewable energy technicians is met

PROJECT DESCRIPTION

Describe the evaluation plan:

1. Logic model
2. Evaluation questions
3. Data collection & analysis } *Data collection matrix*
4. Evaluation deliverables

PROJECT DESCRIPTION

3 Data collection plan

What information do you need?

How will you collect it?

From **who**m?

When?

PROJECT DESCRIPTION

3 Data collection plan TIPS

- Align your data collection to answer your evaluation questions
- Build a body of evidence
  - multiple data sources
  - qualitative and quantitative data
- Embed data collection in regular project activities
- Use existing data whenever possible
- Use existing instruments when/if they match your needs

PROJECT DESCRIPTION

3 Data collection & analysis

Analysis

Organizing, transforming, and describing data

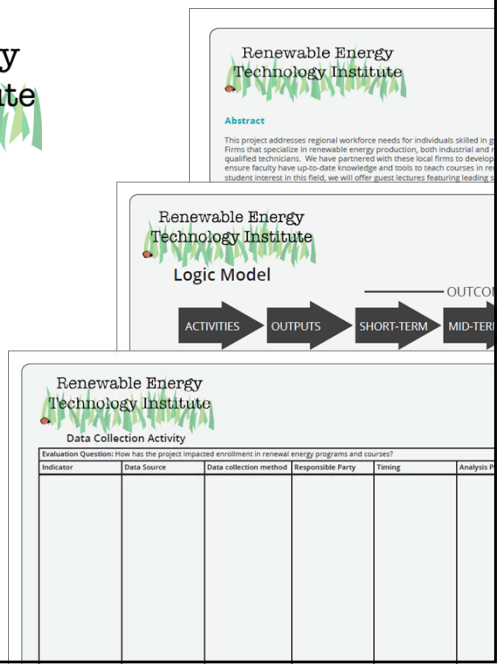
Interpretation

Making sense of analyzed data so that conclusions can be made about the project's quality, progress or impact

ACTIVITY

Renewable Energy Technology Institute

Case Study Activity



Data Collection Planning Matrix

Evaluation Question: How has the project impacted enrollment in renewable energy programs and courses?

Indicator	Data Source	Method	Responsible Party	Timing	Analysis Plan
Change in course enrollment numbers	Institutional research database	Review of institutional and departmental records	Project PI	End of each semester	Comparison of enrollment numbers over time (start 2 years prior to project start)
Opinions of faculty and career center staff about the project's impact	Participating faculty Career center advisors Career center director	In-person interviews	External evaluator	Annually	Inductive coding of interviews to identify themes
Students' reports about why they enrolled	Enrolled students	Web survey	Instructors (instructions provided by evaluator)	Beginning of each semester	Descriptive statistics and inductive coding

PROJECT DESCRIPTION

Describe the evaluation plan:

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PROJECT DESCRIPTION

4 Evaluation Deliverables

ATE-Specific INTELLECTUAL MERIT Criterion

"Is the evaluation likely to provide useful information to the project and others?"

PROJECT DESCRIPTION

4 Evaluation Deliverables

When and what types of reports will be issued?

How will results be shared?

Who will results be shared with?

PROJECT DESCRIPTION

4 Evaluation Deliverables

Information from the evaluation will be needed for

-annual reports to NSF
-annual survey of grantees
-reports to advisory groups

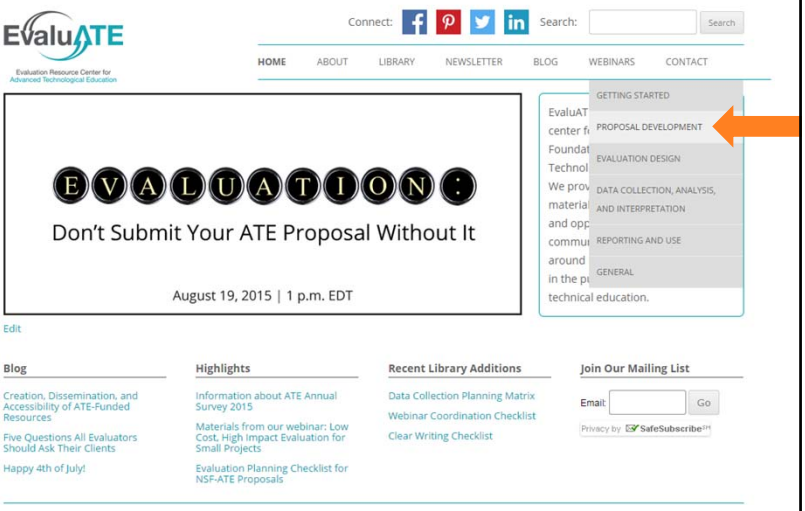
PROJECT DESCRIPTION

5 Evaluation Deliverables

Improvement	Evidence	Accountability
To identify areas for project improvement.	To describe the project's impact.	To provide assurance that the project is using resources appropriately.

MORE RESOURCES

www.evalu-ate.org



bit.ly/evaluate-proposals

Thank You!

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