your ATE proposal:

got evaluation?

8.26.14

Introductions

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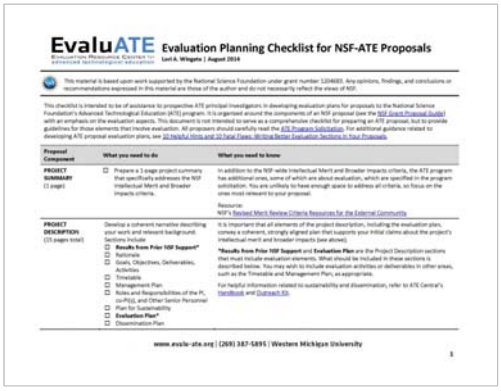
EvaluATE
Evaluation Resource Center for advanced technological education
Western Michigan University

Spokane Falls Community College

The Allison Group

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.

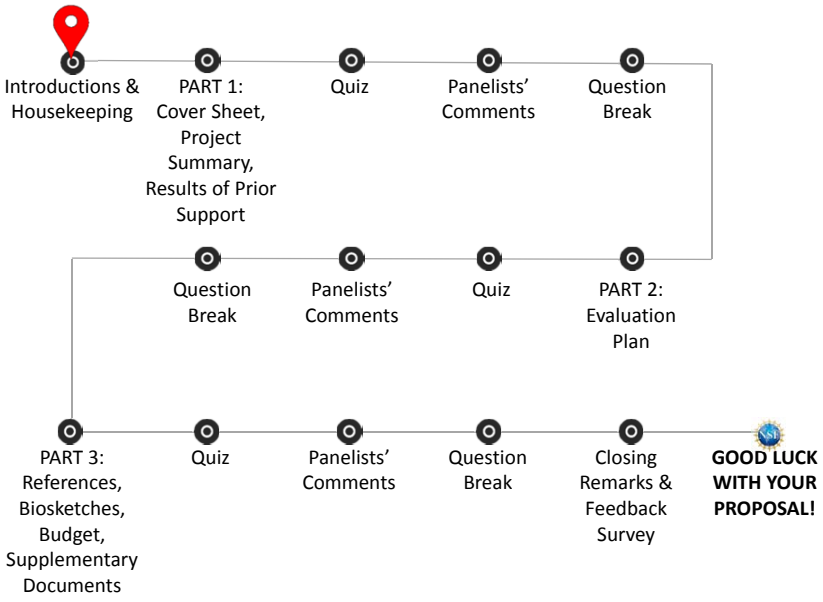
Webinar Materials


EvaluATE Evaluation Planning Checklist for NSF-ATE Proposals

- Checklist
- Slides
- Recording

Available from **evalu-ate.org/events/august_2014**

Overview



Objectives

By the end of the webinar, you will

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

part 1

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Checklist

EvaluATE Evaluation Resource Center for advanced technological education

Evaluation Planning Checklist for NSF-ATE Proposals

Lori A. Wingate | July 2013

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.

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***	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

ATE Proposal Components

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

✓ **Evaluation-related information is needed in these sections**

☑ Cover Sheet

Human Subjects

☒ **Human Subjects** (OPG II.D.6)

Exemption Subsection

IRB App. Date (MM/DD/YY)

Human Subjects Assurance Number

- **Indicate "pending" if application not yet submitted**
- **You WILL need approval before grant is awarded**

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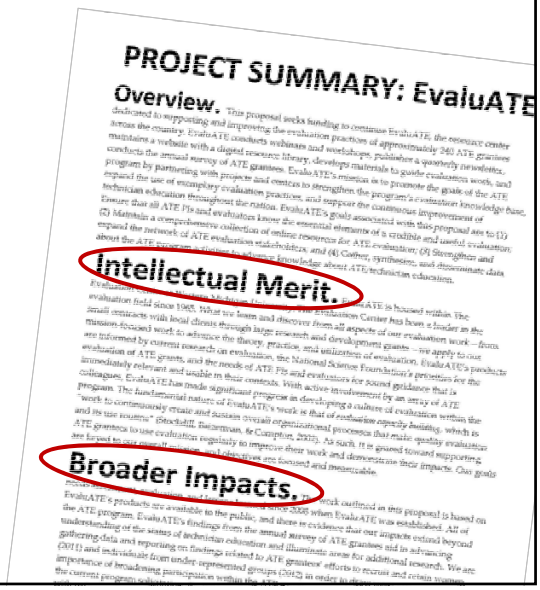
☑ Project Summary

1-page:
- Overview
- **Intellectual Merit**
- **Broader Impacts**


PROJECT SUMMARY: EvaluATE

Overview.

Intellectual Merit.

Broader Impacts.

Merit Review Criteria

Intellectual Merit

potential to advance knowledge

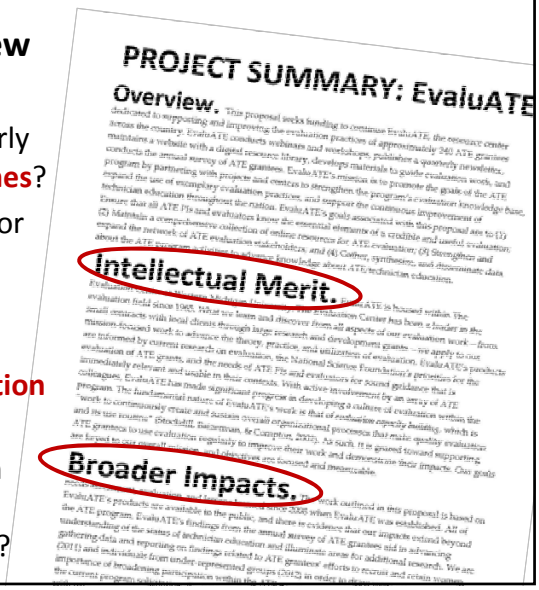
Broader Impacts

potential to benefit society

Project Summary

ATE-Specific Merit Review Criteria:

- Is the evaluation plan clearly tied to the project **outcomes**?
- Does the project provide for effective assessment of **student learning**?
- Is the evaluation likely to provide **useful information** to the project and others?
- Will the project evaluation inform others through the **communication of results**?


PROJECT SUMMARY: EvaluATE

Overview.

Intellectual Merit.

Broader Impacts.

ATE Proposal Components

- ☑ Cover Sheet
- ☑ Project Summary
- ☑ **Project Description** ← **15-page narrative**
- ☐ References Cited
- ☐ Biographical Sketches
- ☐ Budget and Budget Justification
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- ☐ 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

Project Description

Results of Prior Support

> "specific outcomes and results including metrics to demonstrate the **impact** of the project"

- Intellectual Merit
  - *evidence*
- Broader Impacts
  - *evidence*

Results of Prior Support

The prior project achieved all of its goals.	☐	☐
The PI and co-PIs published four peer-reviewed articles based on data generated by the project.	☐	☐
The project developed three lab manuals, provided 40 faculty with professional development, and served 125 students.	☐	☐
The project supported internships for 75 students, more than half of whom secured full-time positions at their internship sites.	☐	☐

☑ Project Description

Results of Prior Support
Rationale
Goals, Objectives, Deliverables, Activities
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Roles and Responsibilities of the PI,
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Plan for Sustainability
Evaluation Plan ⬅
Dissemination Plan

☑ 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

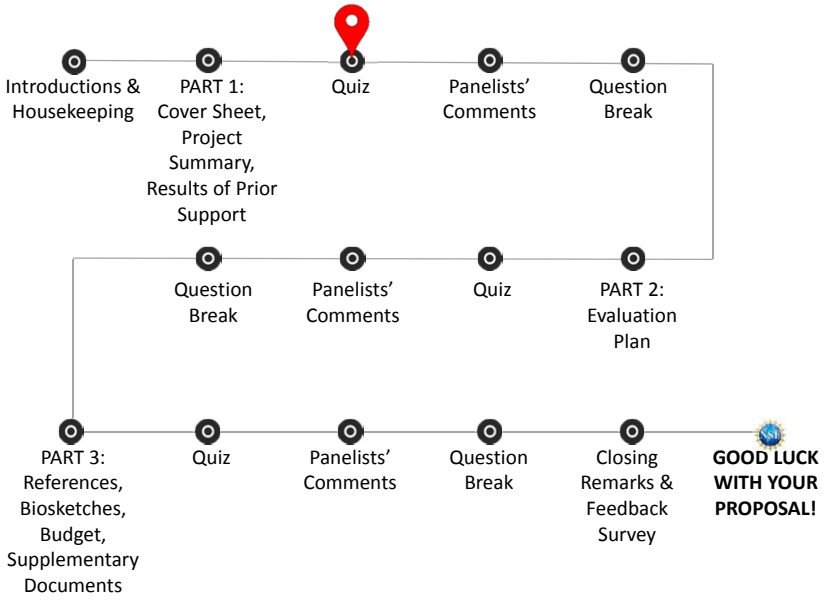
ATE Program Solicitation

> "The funds to support an evaluator **independent** of the project or center must be requested…"

Finding an Evaluator

- Other ATE PIs
- American Evaluation Association's Evaluator Directory
- Universities in your region

Overview



Quiz – Use your markers

HSIRB approval may be submitted to NSF at any time, as long it is before any data are collected from human subjects.

TRUE **FALSE**

Quiz – Use your markers

The most important thing to do in a Results of Prior Support section is indicate how many people your project served.

AGREE **DISAGREE**

Quiz – Use your markers

NSF maintains a directory of approved evaluators on its website.

TRUE **FALSE**

Let's hear from our panelists …

got questions?

type them in the chat box now

part 2

lori wingate

☑ 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 ←

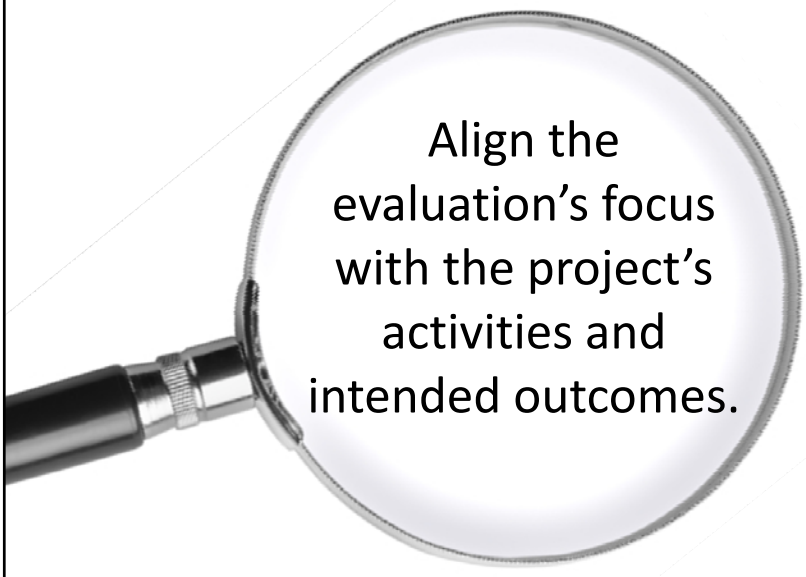
☑ Project Description

Evaluation Plan

- Evaluation focus
- Data collection plan
- Analysis and interpretation
- Reporting schedule and projected uses

Evaluation Focus

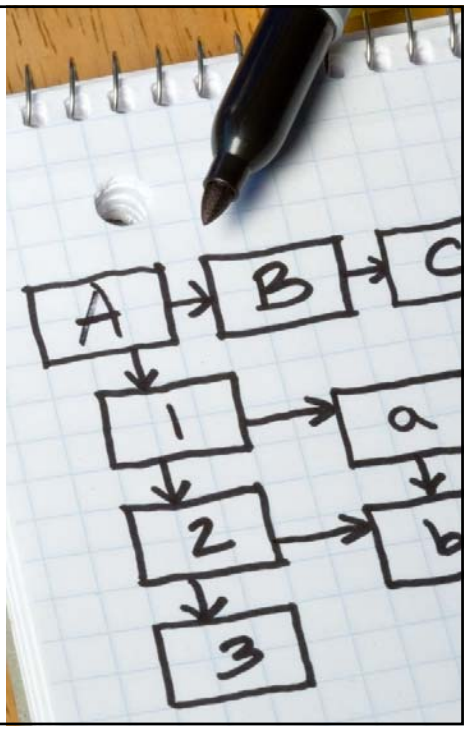
Evaluation Focus



Align the evaluation's focus with the project's activities and intended outcomes.

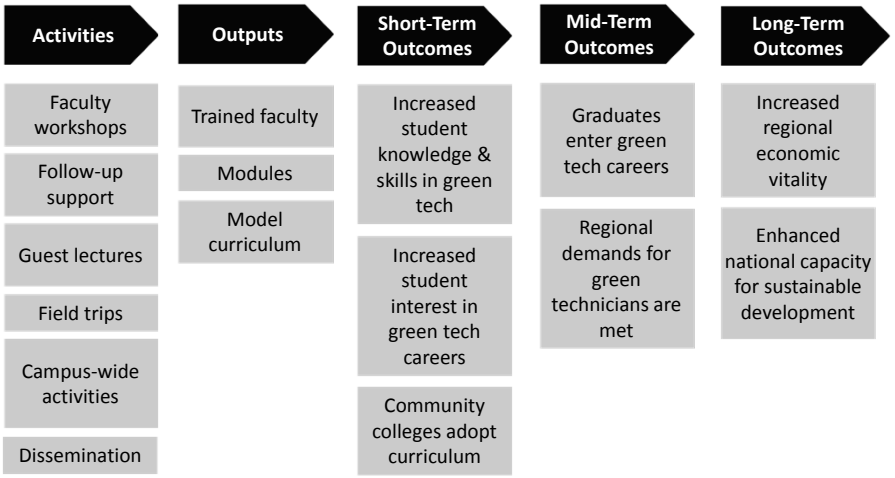
Logic Model

Helpful for project and evaluation planning

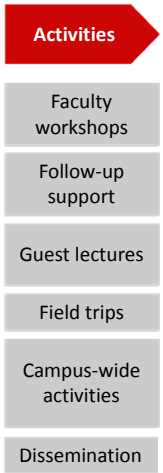


Logic Model Example

Green Energy Technology Institute

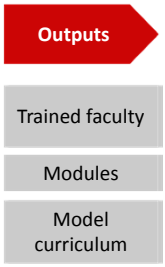


Logic Model Example



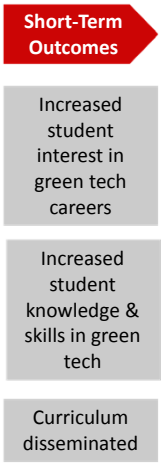
Activities supported by the project

Logic Model Example



Tangible results of the activities

Logic Model Example



What the project's beneficiaries will know or be able to do because of the project

Logic Model Example

What people will do differently because of the project

Mid-Term Outcomes

- Graduates enter green tech careers
- Regional demands for green technicians are met
- Community colleges adopt curriculum

Logic Model Example

Long-term project goals that align with the ATE program's goals

Long-Term Outcomes

- Increased regional economic vitality
- Enhanced national capacity for sustainable development

Logic Model Example

Green Energy Technology Institute

Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
Faculty workshops	Trained faculty	Increased student interest in green tech careers	Graduates enter green tech careers	Increased regional economic vitality
Follow-up support	Modules	Increased student knowledge & skills in green tech	Regional demands for green technicians are met	Enhanced national capacity for sustainable development
Guest lectures	Model curriculum	Community colleges adopt curriculum		
Field trips				
Campus-wide activities				
Dissemination				

Logic Model + Generic Evaluation Questions

Activities **Outputs**

Whom did you reach? (who, how many)

What were participants' reactions to the activities?

What is the quality/utility of the activities and products?

Logic Model + Generic Evaluation Questions

How did the activities affect participants' knowledge, skills, abilities, or attitudes?

Logic Model + Generic Evaluation Questions

To what extent and how did participants change their behavior because of what they learned?

Logic Model + Generic Evaluation Questions

Long-Term Outcomes

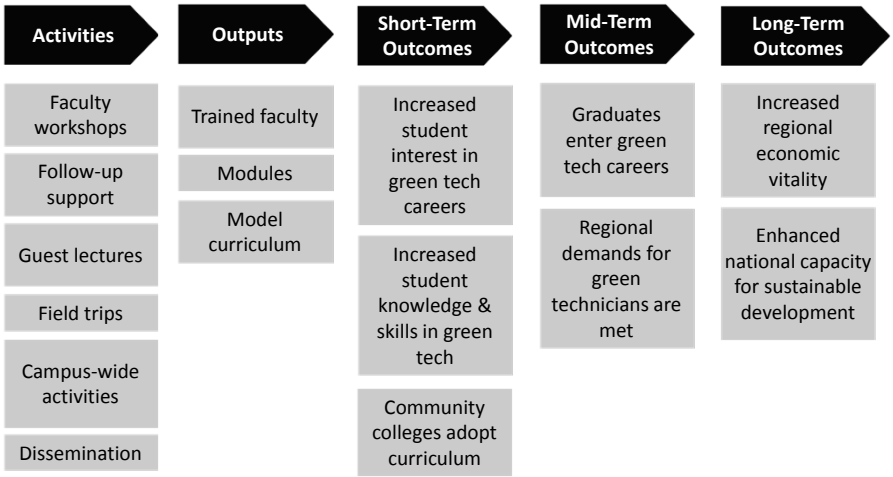
What is the cumulative effect of the project's outcomes?

What aspects of the project are sustainable?

What was transformative about the project?

Example Logic Model

Green Energy Technology Institute



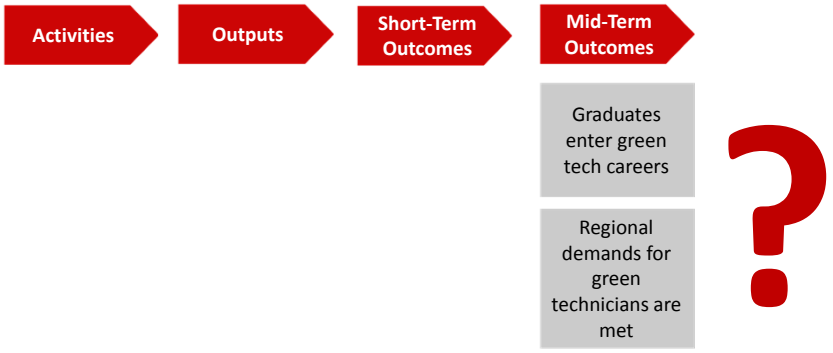
Example: Project-specific Evaluation Questions

Green Energy Technology Institute

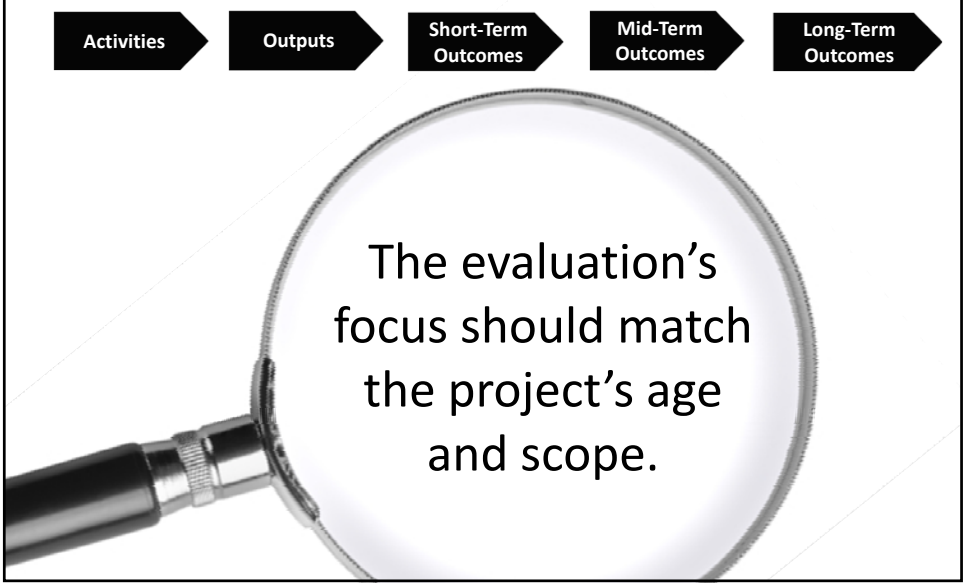
To what extent and how did faculty implementation of course modules affect student interest and learning in green tech?

Example: Project-specific Evaluation Questions

Green Energy Technology Institute



Evaluation Focus



☑ Project Description

Evaluation Plan

- Evaluation focus
- Data collection plan ←
- Analysis and interpretation
- Reporting schedule and projected uses

Data Collection Plan

What information do you need?

How will you collect it?

From **whom**?

When?

Data Collection Plan: Example 1

…The evaluation will utilize an accepted mixed-methods design (Cook & Campbell, 1979). Quantitative and qualitative measures of performance will be used in both a formative and summative manner to gauge the merit and worth of the grant initiative. This mixed-methods approach has proven useful in utilizing both quantitative and qualitative performance indicators in a single research design (Frechtling & Sharp, 1997). It is also consistent with the best practices and recommendations for rigorous scientifically-based research….

Data Collection Plan: Example 1

WHAT?
HOW?
WHO?
WHEN?

…The evaluation will utilize an accep mixed-methods desig k & Campbell). Quantitative and itative mea of performance will b ed in bo ormative and summative manner auge merit and worth of the grant initiative ed-methods approach has proven n utilizing both quantitative and qu performance indicators in a si ese design (Frechtling & Sharp, 19 s also c tent with the best practic ecommenda for rigorous sci ly-based research.

Data Collection Plan: Example 2

WHAT?
HOW?
WHO?
WHEN?

Project staff will administer an end-of-workshop survey to obtain participants' feedback, including both ratings and open-ended comments. The external evaluator will conduct interviews with participants six months following the workshop to determine the extent to which they applied the workshop content. She also will interview a random sample of students at the end of each semester to learn how their knowledge and perceptions of green energy technology were impacted.

Data Collection Plan: Example 2

WHAT?

Project staff will administer an end-of-workshop survey to obtain **participants' feedback**, including both ratings and open-ended comments. The external evaluator will conduct interviews with participants six months following the workshop to determine the **extent to which they applied the workshop content**. She also will interview a random sample of students at the end of each semester to learn how their **knowledge and perceptions** of green energy technology were impacted.

Data Collection Plan: Example 2

HOW?

Project staff will administer an end-of-workshop **survey** to obtain participants' feedback, including both ratings and open-ended comments. The external evaluator will conduct **interviews** with participants six months following the workshop to determine the extent to which they applied the workshop content. She also will **interview** a random sample of students at the end of each semester to learn how their knowledge and perceptions of green energy technology were impacted.

Data Collection Plan: Example 2

WHO?

Project staff will administer an end-of-workshop survey to obtain **participants'** feedback, including both ratings and open-ended comments. The external evaluator will conduct interviews with participants six months following the workshop to determine the extent to which they applied the workshop content. She also will interview a random sample of **students** at the end of each semester to learn how their knowledge and perceptions of green energy technology were impacted.

Data Collection Plan: Example 2

WHEN?

Project staff will administer an **end-of-workshop** survey to obtain participants' feedback, including both ratings and open-ended comments. The external evaluator will conduct interviews with participants **six months following the workshop** to determine the extent to which they applied the workshop content. She also will interview a random sample of students at the **end of each semester** to learn how their knowledge and perceptions of green energy technology were impacted.

Data Collection Plan Example

		What	How	Who	When
Goal	**Evaluation Question**	**Indicator**	**Measure/ Method**	**Data Source**	**Timing**
Students' interest in green tech careers increases	To what extent did students' interest in green tech careers increase because of the project?	Change in course enrollment numbers	Review of institutional & departmental records	Project personnel	End of each semester
		Students' intent to pursue green tech job	In-class survey in retrospect-ive pre-post format	Students in technician ed courses	End of each semester
		Opinions of faculty and career center staff	Interviews	Sample of faculty/staff	Annually
		Number/ quality of employment interviews	Interviews	On-campus recruiters	Each visit

Tips for Practical Data Collection

- Build a body of evidence
  - Multiple data sources
  - Qualitative and quantitative data
- Embed data collection into regular project activities
- Use existing data whenever possible
- Use existing instruments when/if they match your needs

☑ Project Description

Evaluation Plan

- Evaluation focus
- Data collection plan
- Analysis and interpretation ⬅
- Reporting schedule and projected uses

Analysis and Interpretation

How will you make sense of the data?

What sorts of comparisons will be made?

What counts as "success"?

Analysis and Interpretation

Analysis

Organizing, transforming, and describing data

Analysis and Interpretation

Interpretation

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

☑ Project Description

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Reporting and Projected Uses

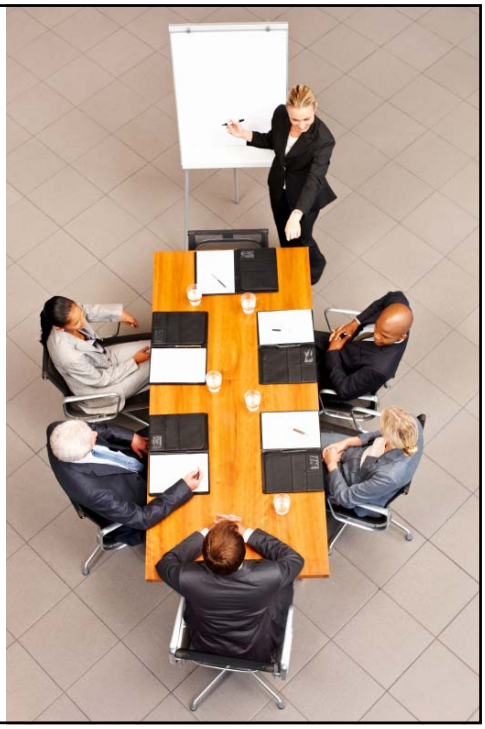
ATE-Specific INTELLECTUAL MERIT and BROADER IMPACTS Criteria:

- Is the evaluation likely to provide useful information to the project and others?
- Will the project evaluation inform others through the communication of results?

Reporting and Projected Uses

When and what types of reports will be issued?

How will results be shared?



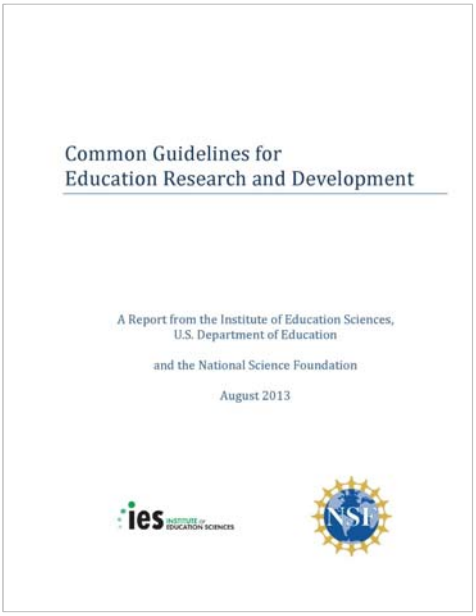
Reporting and Projected Uses

Information from the evaluation will be needed for

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

To learn more about aligning evaluation plans to types of projects, see the

Common Guidelines for Education Research and Development



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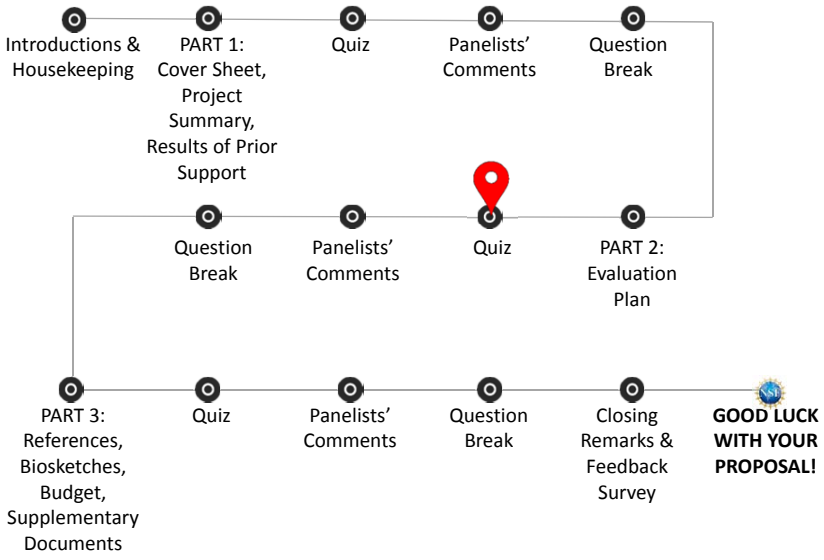
ATE CENTRAL

Check out ATE Central's presentation on social media, dissemination, sustainability, and data management plans at www.evalu-ate.org/events

Overview



Quiz Time – Use your markers

Evaluation reports are submitted to NSF only at the end of a grant.

TRUE **FALSE**

Quiz Time – Use your markers

Logic models are optional for ATE proposals.

TRUE **FALSE**

Quiz Time – Use your markers

Mixed methods evaluation studies are recommended only for large-scale projects.

TRUE **FALSE**

Let's hear from our panelists …

got questions?

type them in the chat box now

part 3

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- ☑ **References Cited** ←
- ☐ Biographical Sketches
- ☐ Budget and Budget Justification
- ☐ Current and Pending Support
- ☐ Facilities, Equipment and Other Resources
- ☐ Supplementary Documents

☑ References Cited

Include references to pertinent evaluation literature in your evaluation plan section

References

Bartlett, K. R., Schleif, N., & Bowen, M. M. (in press). The use of workforce assessm career and technical education program evaluation. *Career and Technical Educati*

Frechtling, J. (2010). *The 2010 user-friendly guide for project evaluation*. Retrieved Sept www.westat.com/Westat/pdf/projects/2010UFHB.pdf

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Phillips, P. P., & Phillips, J. J. (2007). *The value of learning: How organizations capture translate them into support, improvement, and funds*. San Francisco: Pfeiffer.

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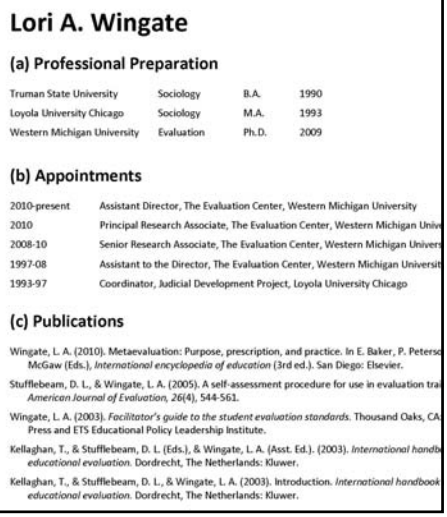
- ☐ Supplementary Documents

☑ Biographical Sketches

Get one for your evaluator

Follow 2-page NSF format

Include in **Supplementary Documents Section**



Lori A. Wingate

(a) Professional Preparation

Truman State University	Sociology	B.A.	1990
Loyola University Chicago	Sociology	M.A.	1993
Western Michigan University	Evaluation	Ph.D.	2009

(b) Appointments

2010-present	Assistant Director, The Evaluation Center, Western Michigan University
2010	Principal Research Associate, The Evaluation Center, Western Michigan Univ
2008-10	Senior Research Associate, The Evaluation Center, Western Michigan Univers
1997-08	Assistant to the Director, The Evaluation Center, Western Michigan Universit
1993-97	Coordinator, Judicial Development Project, Loyola University Chicago

(c) Publications

Wingate, L. A. (2010). Metaevaluation: Purpose, prescription, and practice. In E. Baker, P. Peterso McGaw (Eds.), *International encyclopedia of education* (3rd ed.). San Diego: Elsevier.

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- ☐ Supplementary Documents

☑ Budget and Budget Justification

"The **funds** to support an evaluator independent of the project or center must be requested and the requested funds **must match the scope** of the proposed evaluative activities."

Budgeting for Evaluation

10%

rule of thumb

Budgeting for Evaluation

reality 8%

☑ Budget & Budget Justification

Evaluation Budget Components

Time

Travel

Materials and other expenses

Time

How many days does the evaluator need to spend in order to generate the needed evaluation deliverables and services?

Travel

Will the evaluator need to travel to

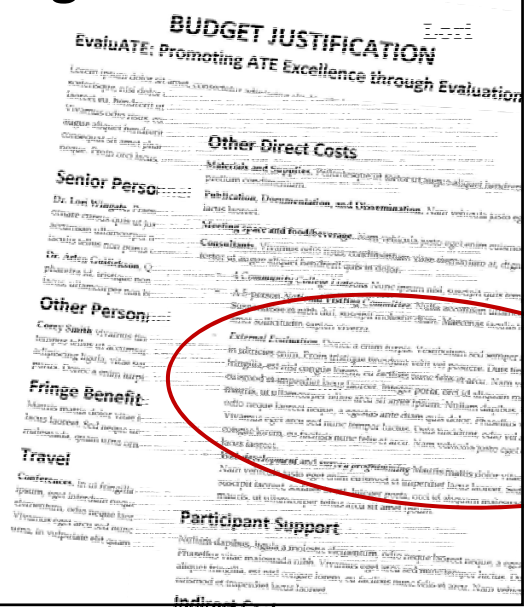
- attend the ATE PI conference, advisory committee meetings, or special project events?
- collect data from participants?
- meet with project staff to plan the evaluation or discuss results?

☑ Budget & Budget Justification

For **CONSULTANTS,**

Under "Other Direct Costs" identify

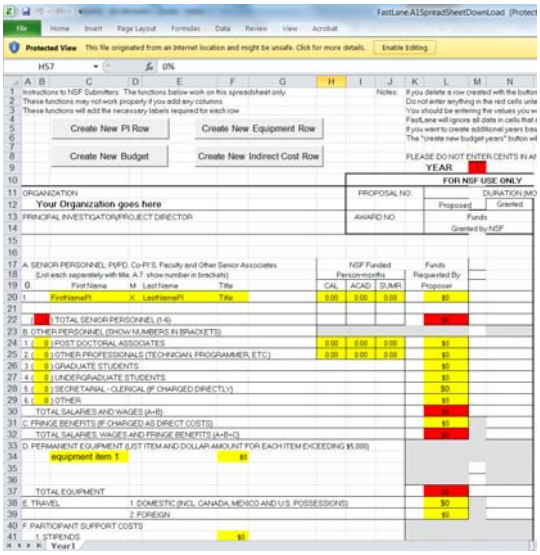
- evaluator's daily rate
- time committed to the project
- travel costs
- materials costs



☑ Budget & Budget Justification

For **SUBAWARDS,**

Have the evaluator prepare a detailed budget using the NSF budget template



ATE Proposal Components

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

☑ Supplementary Documents

- A **commitment letter** from your evaluator
- Your evaluator's **biosketch**
- **Data Management Plan** **(REQUIRED)**

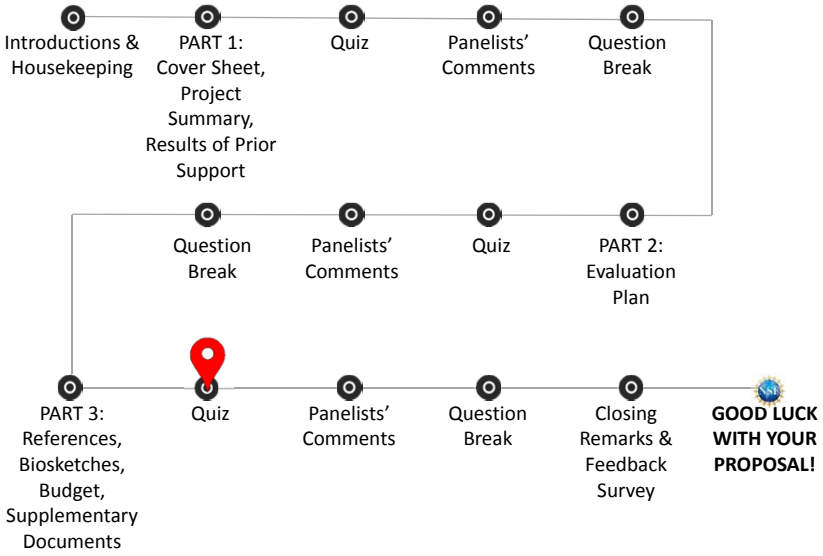
☑ Supplementary Documents

Data Management Plans must describe:

1. Types of data
2. Data format and content standards
3. Access and sharing policies
4. Privacy, confidentiality provisions
5. Reuse and redistribution policies
6. Archiving and data preservation plans

ATE CENTRAL

Overview



Quiz Time – Use your markers

ATE projects are required to dedicate at least 8 percent of their budgets to evaluation.

TRUE **FALSE**

Quiz Time – Use your markers

The evaluation budget may be reported either as a lump sum or broken down by cost category.

TRUE **FALSE**

Quiz Time – Use your markers

A letter from the evaluator is necessary to show his/her commitment to work on the project if funded.

TRUE **FALSE**

Let's hear from our panelists …

Gerhard
Salinger

Terryll
Bailey

Åsa
Bradley

Krystin Martens
Lori Wingate
Gerhard Salinger
Åsa Bradley
Terryll Bailey
got questions?
type them in the chat box now

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Thank You!

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