your ATE proposal:

got evaluation?

8.26.14

Introductions

Krystin Martens  Lori Wingate  Gerhard Salinger  Åsa Bradley  Terryll Bailey

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Your ATE Proposal: got evaluation?

Advanced Technological Education

www.nsf.gov/ate

Webinar Materials

- Checklist
- Slides
- Recording

Available from evalu-ate.org/events/august_2014
Your ATE Proposal: got evaluation?

Overview

PART 1: Cover Sheet, Project Summary, Results of Prior Support
- Quiz
- Panelists’ Comments
- Question Break

PART 2: Evaluation Plan
- Quiz
- Panelists’ Comments
- Question Break

PART 3: References, Biosketches, Budget, Supplementary Documents
- Quiz
- Panelists’ Comments
- Question Break

GOOD LUCK WITH YOUR PROPOSAL!

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
# Checklist

<table>
<thead>
<tr>
<th>Evaluation Planning Checklist for NSF-ATE Proposals</th>
<th>Lori Wingate</th>
<th>July 2014</th>
</tr>
</thead>
</table>

**Proposed Component:**
- What you need to do
  - Identify a key component of your project that will be evaluated.
  - Develop a plan to collect, organize, and analyze the data needed to support the evaluation.
- What you need to know
  - Review the NSF's "Evaluation Plan" guidelines.
  - Understand your project's specific needs and limitations.

**Project Narrative**
- Develop a coherent narrative describing your project's mission and goals, and the methods you will use to achieve them.
- Identify key stakeholders and potential partners.

**Results for Other NSF Support**
- Evaluate the impact of your project on existing programs or initiatives.
- Identify any potential challenges or limitations.

**Management Plan**
- Develop a plan for managing project resources and activities.
- Ensure that all project activities are tracked and reported.

**Funding Plan**
- Outline the sources of funding for your project.
- Plan for future funding opportunities.

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**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 (GPG 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
**ATE Proposal Components**

- **✓** Cover Sheet
- **✓** Project Summary
- □ Project Description
- □ References Cited
- □ Biographical Sketches
- □ Budget and Budget Justification
- □ Current and Pending Support
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- □ Supplementary Documents

**✓ Project Summary**

1-page:
- 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**?
ATE Proposal Components

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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

<table>
<thead>
<tr>
<th>The prior project achieved all of its goals.</th>
<th>☑</th>
<th>☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>The PI and co-PIs published four peer-reviewed articles based on data generated by the project.</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>The project developed three lab manuals, provided 40 faculty with professional development, and served 125 students.</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>The project supported internships for 75 students, more than half of whom secured full-time positions at their internship sites.</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>
Your ATE Proposal: got evaluation?

☑ 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

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
Your ATE Proposal: got evaluation?

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Panelists’ Comments
Question Break

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Closing Remarks & Feedback Survey

GOOD LUCK WITH YOUR PROPOSAL!

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 ...

Åsa Bradley

Terryll Bailey

Gerhard Salinger

Krystin Martens

Lori Wingate

Gerhard Salinger

Åsa Bradley

Terryll Bailey

got questions?

type them in the chat box now
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

What aspects of the project will be evaluated?
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

Activities | Outputs | Short-Term Outcomes | Mid-Term Outcomes | Long-Term Outcomes
---|---|---|---|---
Faculty workshops | Trained faculty | Increased student knowledge & skills in green tech | Graduates enter green tech careers | Increased regional economic vitality
Follow-up support | Modules | Increased student interest in green tech careers | 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 Example

Activities supported by the project

Activities:
- Faculty workshops
- Follow-up support
- Guest lectures
- Field trips
- Campus-wide activities
- Dissemination
Logic Model Example

**Outputs**

- Trained faculty
- Modules
- Model curriculum

Tangible results of the activities

---

Logic Model Example

**Short-Term Outcomes**

- Increased student interest in green tech careers
- Increased student knowledge & skills in green tech
- Curriculum disseminated

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

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

Mid-Term Outcomes

Logic Model Example

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

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

Long-Term Outcomes
### Logic Model Example

**Green Energy Technology Institute**

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

### 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

Short-Term Outcomes

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

Logic Model + Generic Evaluation Questions

Mid-Term Outcomes

To what extent and how did participants change their behavior because of what they learned?
Logic Model + Generic Evaluation Questions

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

Activities
- Faculty workshops
- Follow-up support
- Guest lectures
- Field trips
- Campus-wide activities
- Dissemination

Outputs
- Trained faculty
- Modules
- Model curriculum

Short-Term Outcomes
- Increased student interest in green tech careers
- Increased student knowledge & skills in green tech
- Community colleges adopt curriculum

Mid-Term Outcomes
- Graduates enter green tech careers
- Regional demands for green technicians are met

Long-Term Outcomes
- Increased regional economic vitality
- Enhanced national capacity for sustainable development
Example: Project-specific Evaluation Questions

Green Energy Technology Institute

Activities → Outputs → Short-Term Outcomes

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

Activities → Outputs → Short-Term Outcomes → Mid-Term Outcomes

Graduates enter green tech careers

Regional demands for green technicians are met

?
The evaluation’s focus should match the project’s age and scope.

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?

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.

HOW?

...The evaluation will utilize an accepted mixed-methods design (Cook & Campbell, 1979).

Quantitative and qualitative measures of performance will be used in both formative and summative manners to gauge the merit and worth of the grant initiative. The 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.

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.

WHEN?

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Quantitative and qualitative measures of performance will be used in both formative and summative manners to gauge the merit and worth of the grant initiative. The 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 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.

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

**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

<table>
<thead>
<tr>
<th>Goal</th>
<th>Evaluation Question</th>
<th>Indicator</th>
<th>How</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ interest in green tech careers increases</td>
<td>To what extent did students’ interest in green tech careers increase because of the project?</td>
<td>Change in course enrollment numbers</td>
<td>Review of institutional &amp; departmental records</td>
<td>Project personnel</td>
<td>End of each semester</td>
</tr>
<tr>
<td>Students’ interest in green tech careers increases</td>
<td>To what extent did students’ interest in green tech careers increase because of the project?</td>
<td>In-class survey in retrospective pre-post format</td>
<td>Students in technician ed courses</td>
<td>End of each semester</td>
<td></td>
</tr>
<tr>
<td>Opinions of faculty and career center staff</td>
<td></td>
<td>Interviews</td>
<td>Sample of faculty/staff</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td>Number/quality of employment interviews</td>
<td></td>
<td>Interviews</td>
<td>On-campus recruiters</td>
<td>Each visit</td>
<td></td>
</tr>
</tbody>
</table>

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
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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

Evaluation Plan
- Evaluation focus
- Data collection plan
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- Reporting schedule and projected uses

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*.

☑️ **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

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

PART 1: Cover Sheet, Project Summary, Results of Prior Support

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Quiz Time – Use your markers

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

TRUE  FALSE
Logic models are optional for ATE proposals.

**Quiz Time – Use your markers**

TRUE  FALSE

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

**Quiz Time – Use your markers**

TRUE  FALSE
Let’s hear from our panelists ...

Terryll Bailey
Åsa Bradley
Gerhard Salinger

got questions?

type them in the chat box now
part 3

ATE Proposal Components

- Cover Sheet
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- References Cited
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## References Cited

Include references to pertinent evaluation literature in your evaluation plan section.

### References


---

## ATE Proposal Components

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- □ Supplementary Documents

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August 2014

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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

Iowa University, Chicago, Sociology, M.A., 1993

Western Michigan University, Evaluation, Ph.D., 2000

(b) Appointments

2000-present Assistant Director, The Evaluation Center, Western Michigan University

2005 Principal Research Associate, The Evaluation Center, Western Michigan University

2000-2005 Senior Research Associate, The Evaluation Center, Western Michigan University

1997-00 Assistant to the Director, The Evaluation Center, Western Michigan University

1995-97 Coordinator, Judicial Development Project, Loyola University Chicago

(c) Publications


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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

rule of thumb

10%
Budgeting for Evaluation

8% reality

☑ 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

[Image of budget template]

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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

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GOOD LUCK WITH YOUR PROPOSAL!
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
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got questions?
type them in the chat box now

www.evalu-ate.org

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